THE DRUG AND COSMETIC INDUSTRY

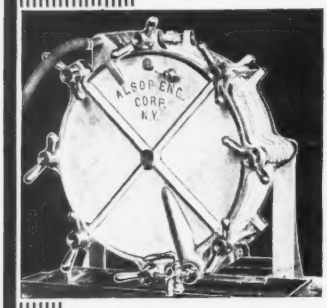
FORMERLY CALLED "DRUG MARKETS"

January 1933

A little Faster. A little Better

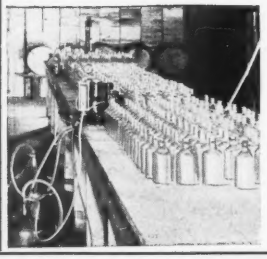
★

TO duplicate in your product every day
The excellence of your laboratory way.
Ask about an Alsop Mixer



★

TO give your product a brilliance that must be seen
And defy competition, however keen.
Ask about an Alsop Filter



★

TO ensure perfect filling and clean exterior
So needed to make your product superior.
Ask about an Alsop Filler

There is No Substitute for Experienced Service

Cut alo
this lin
for Coup

ALSOP ENGINEERING CORP.

Manufacturers of electric fillers, asbestos discs, portable electric mixers, pumps, electric bottle fillers and glass-lined tanks

39 West 60th St.

New York N. Y.

Gentlemen,

Send to me, without charge, a copy of the Alsop Handbook, 1933 Edition, on Tanks, Mixers, Fillers and Bottle Fillers.

Name of Individual .....

Name of Company .....

Street Address .....

.....

TS1
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v.38

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. . . . *in* 1933

SOMEWHERE in a small experimental food kitchen a shirt-sleeved young man is slowly stirring the steaming contents of a copper kettle. He is thinking of the elusive flavor of orchard-ripened fruits, moist with the early morning dew. This he seeks to capture in containers of sparkling glass. An eager and responsive market awaits the culmination of his experiments . . .

Somewhere in the still whiteness of a great laboratory a gray-haired chemist bends intently over his microscope. The hours grow old, yet he lingers on. From his tireless labors may come a magic liquid capable of relieving pain, or preventing infection, or removing the dread horror of an insidious disease. A suffering public stands ready to voice its sincere appreciation . . .

In the back room of a neighborhood beauty shop . . . in the corner of a famous laboratory . . . on the eleventh floor of a dingy loft-building . . . or, in a distant cross-roads preserving plant—men young and old, manufacturers large and small, are experimenting to produce new and better products, or to find a more practical and economical way of doing a thing.

Business may be in a state of chaos . . . industry's wheels stilled. But true progress has not stopped . . . it has not even hesitated. The world holds vigorous approval, in plaudits and in cash, for men and manufacturers like these. Let us enter the New Year with renewed confidence . . . let us be up and doing. The world will continue to demand new and better products. Be ready to supply them!

PHOENIX METAL CAP CO.

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THE DRUG AND COSMETIC INDUSTRY

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Formerly Called "DRUG MARKETS"

January, 1933

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Benzol Products Co.
California Fruit Growers Exchange
Heyden Chemical Corp.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Works
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.
Schuylkill Chemical Co.
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Alcohol
U. S. Industrial Alcohol Co.

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Abbott Laboratories
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

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Mallinckrodt Chemical Works
Merck & Co., Inc.
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Quinine
Mallinckrodt Chemical Works
Merck & Co., Inc.
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California Fruit Growers Exchange
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The Resinous residue obtained by removing the volatile oil or terpenes.

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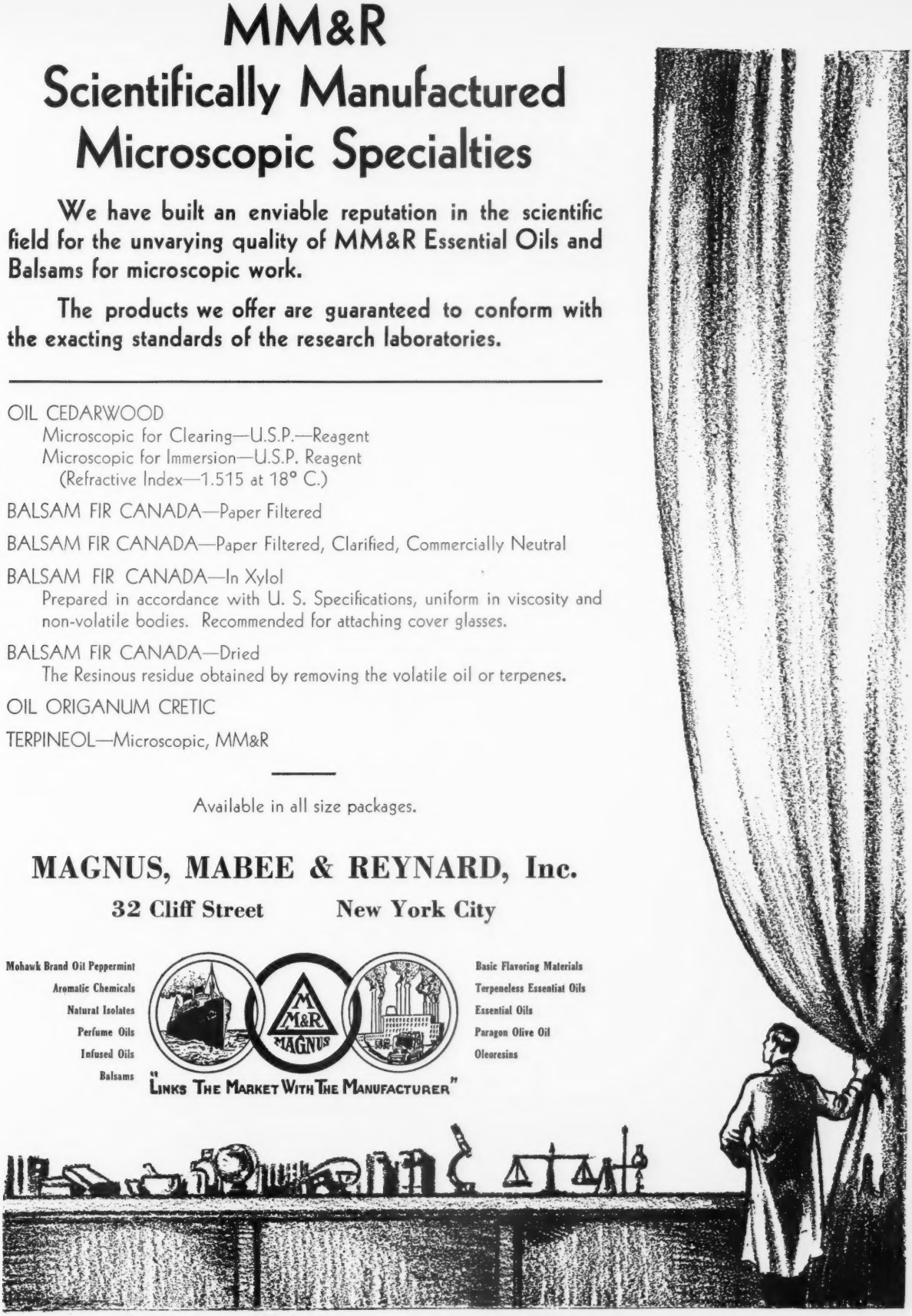


NO BLACK SHEEP IN THIS FAMILY

EVERY BOTTLE IS SEALED SAFELY AND CLEANLY!

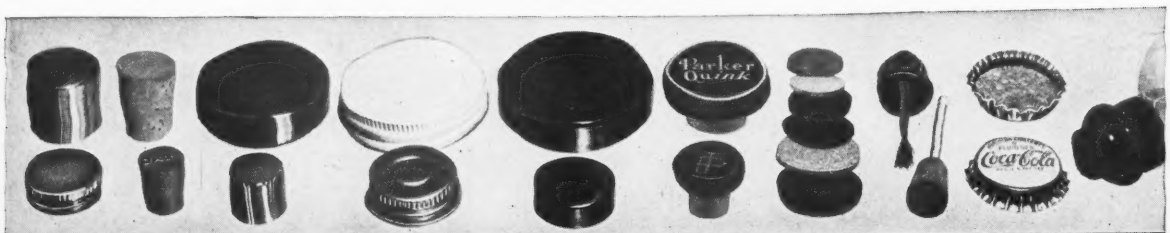
THERE'S no bah, bah to *this* black sheep tale. Bottles sealed with Armstrong's Cork don't get themselves or their makers in trouble.

Ask any of the large pharmaceutical houses or other big Armstrong Cork users—or get first hand proof by using Armstrong's Corks yourself. Five hundred or five million, you can *always* rely on getting the quality you pay for. Armstrong's grade lines never shift.

But selling corks isn't the sum total of our service. Are you designing a new package? Looking for expert and unbiased advice on sealing problems? Our Package Styling Department and our laboratory are at your call. Armstrong can supply any type of closure you require (see complete line below). Send your packages and outline your needs to Armstrong Cork & Insulation Company, Closure Division, 913 Arch Street, Lancaster, Pennsylvania.

Armstrong's Corks

Consider, also, these other closures in Armstrong's complete line



Artmetal Caps | Corks and Stoppers | Artmoid Caps | Metal Caps, Single Shell | Metal Caps, Double Shell | Embossed Top Corks | Cap Liners | Daubers Applicators | Crown Caps | Cel-O-Seal Caps & Bands

TWO DISTINCTIVE CREATIONS

These brilliant, sparkling bottles give a note of fine distinction to your product. They are stock bottles, suitable for many different kinds of products. By a skillful use of label and cap, you can easily adapt these bottles to make a beautiful, original container.

The round style is No. 337, and the square style is No. 338. Both styles are particularly well adapted to automatic labeling and packaging. They are available in all sizes from 1 dram to 16 oz. for immediate delivery. The 1, 2 and 4 dram sizes shown in the smaller illustration are suitable for dispensing samples and many other purposes.

Both series are furnished in standard finish for plastic or metal screw caps and may be supplied with or without black plastic caps.

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Factory and Main Office: Baltimore, Md.

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Telephone: CHickering 4-0592

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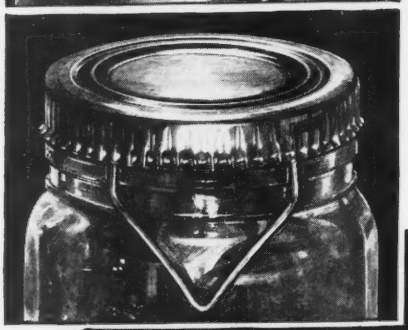
IN C.C. & S. CLOSURES *you get* ALL *these features!*

● You cannot afford to be casual in the selection of a closure. Consider first the requirements it must meet, both in your factory and in the hands of consumers. Then come to C. C. & S. for the "plus" service that smooths the way to a correct solution of your particular problem.

A style, size and type for every purpose



EFFECTIVE SEALING

SUITABILITY FOR PRODUCT

EASY APPLICATION

EASY REMOVAL

BEAUTIFUL DECORATIONS

DEPENDABLE SUPPLY

NATION-WIDE SERVICE

A complete line of Capping Machinery

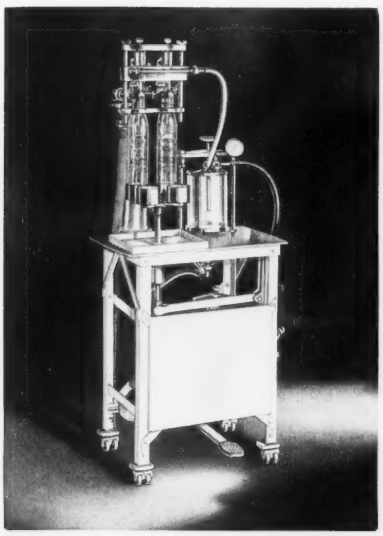
CROWN CORK & SEAL CO. Baltimore Md.

WORLD'S LARGEST MAKERS OF CLOSURES FOR GLASS CONTAINERS

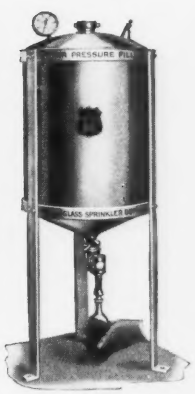
It's all in the **CAP**

A FEW ITEMS of U. S. EQUIPMENT

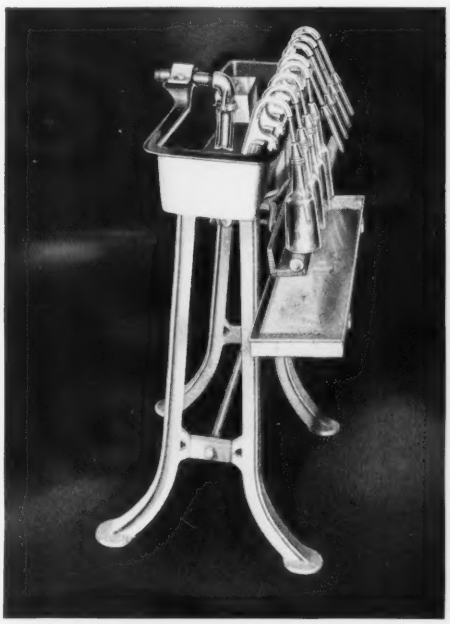
Economically Solving Your Manufacturing Problems



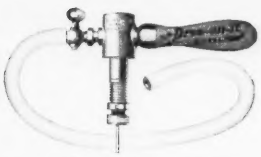
Model "B" Hand Vacuum Filler



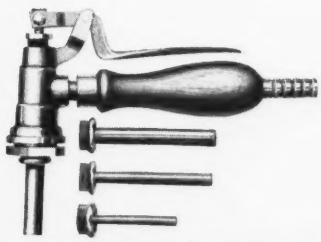
Single Unit Air Pressure Filler



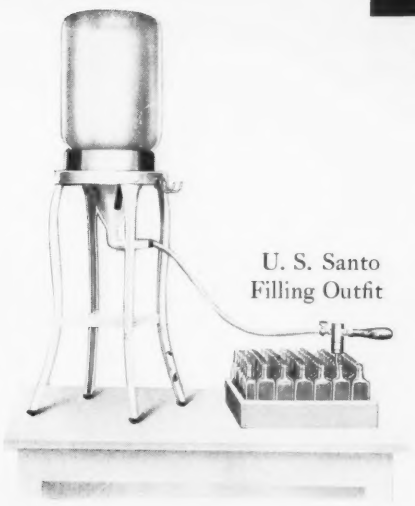
Siphon Principle Filler—new type (cover removed)



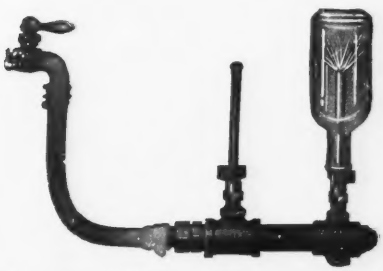
Pres-On-It Hand Filler



Whitton Type Hand Filler



U. S. Santo Filling Outfit



Automatic Rinser Spouts, mounted single or in multiples

OUR VARIED LINES MAKE IT EASY FOR US TO SOLVE YOUR PROBLEMS

Let us help you

U. S. BOTTLERS MACHINERY CO. INC.

Bottling and Packaging Engineers

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CHEMISTS who work with tooth paste have one unalterable rule: above everything else the precipitated chalk must never vary in uniformity from the grade adopted for the tooth paste formula.

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That is why manufacturers of leading tooth paste brands, from the beginning of their business, have specified Sturge's Standard.

U. S. P. ALWAYS

Sturge's Standard Chalks have always been up to the standard of the U. S. P.

NO GRIT

All Sturge's Standard Chalk is free from grit.

NO FREE ALKALI

By special methods of manufacture the available alkalinity of Sturge's Standard Chalk is so reduced that there is no red coloration when dilute phenolphthalein is poured upon the dry powder.

COLOR UNADULTERATED

Sturge's Standard Chalk is not treated in any way and exhibits only the natural bright white of the pure Calcium Carbonate.

FREE FROM METALS

Finally, the standard of the U.S.P. is sufficiently severe to condemn all but the slightest traces of metallic impurities, so that the almost entire absence of these in Sturge's Standard Chalks is guaranteed.

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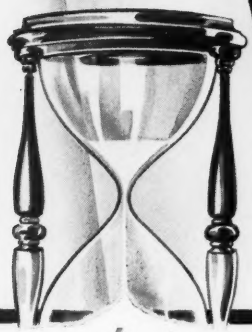
FOR A GOOD TOOTH PASTE

LEADERSHIP

THRU THE PAGES OF CHEMICAL HISTORY

PARACELSUS 26

Paracelsus (1493-1541), the Luther of chemistry and medicine, broke with tradition and publicly burned the writings of predecessors who founded their practice on the teachings of the ancients. He brought medicine from a pseudo-science half magic, half tradition, to a real science based on observation and experiment.



and to-day
MONSANTO

is pioneering new developments in diversified fields. Through the unceasing work of its chemists and extensive research laboratories, Monsanto is constantly enlarging the field of usefulness of its present products and bringing out new products to meet the changing needs of consuming industries.

Recent refinements in Triphenyl Phosphate, in certain types of lacquers, in Benzoic Acid U. S. P., Sodium Benzoate U. S. P., Vanillin Monsanto and in many other fine chemicals illustrate improvements made through modern Monsanto research.

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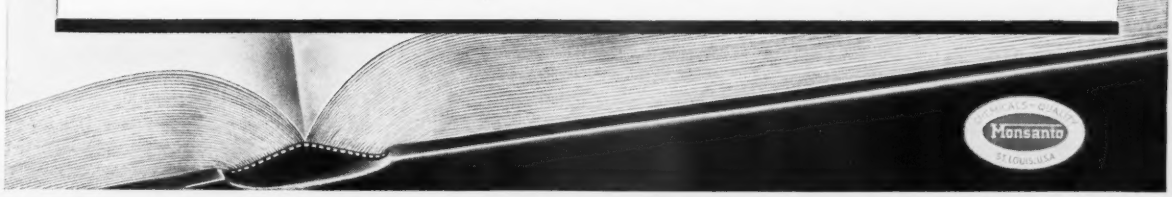

SALICYLATES

WE offer Acetylsalicylic Acid and other Salicylates conforming to the high and uniform standards of Merck. With our years of experience we are in a most favorable position to supply the form best suited to your needs.

ACETYLSALICYLIC ACID U. S. P.
Fine Crystals, Powder and Granular.
Granulated with 10% Starch—
White, Pink and Green.

SODIUM SALICYLATE U. S. P.

METHYL SALICYLATE U. S. P.

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SALOL U. S. P. *and Minor Salicylates*

We also offer the following Medicinal Chemicals, which are sometimes combined with Salicylates in tablet formulas:

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Crystals and Powder

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Powder

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Let us quote on your requirements

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...Consult Kimble on your packaging and sampling problems

Drug, pharmaceutical and perfume lines are highly competitive. Therefore the final sale usually depends on which package looks the best and appeals most strongly to the consumer.

A trade whose eyes pick out nicely packaged things invariably turns to products put up in glass. For this reason Kimble Vials, Ampoules and other small glass containers have become the standard packaging mediums for America's outstanding manufacturers of pharmaceuticals, proprietaries and toiletries.

Kimble Glass Containers are automatic-machine-made for perfect uniformity—retempered for maximum strength—and are light in weight, affording great economy in shipping. Their low cost, wide range of sizes and attractive closure designs make them ideal for presenting samples of your products to the trade.

• • •

Confer with us on your packaging and sampling requirements—and save time, money and production costs

KIMBLE GLASS COMPANY

VINELAND, NEW JERSEY.

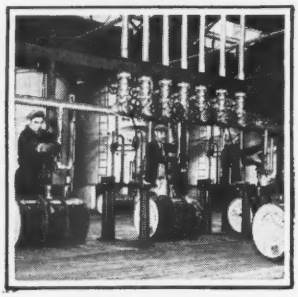
NEW YORK • PHILADELPHIA • BOSTON
CHICAGO • DETROIT

• DIVISION OF U. S. INDUSTRIAL ALCOHOL CO. •

In these large distilling columns many chemical solvents are produced.

An assembly of 20 large storage tanks for important solvent chemicals.

Accurate measure is guaranteed by these automatic - electric filling machines.



ETHYL OXALATE

(*Di-ethyl Oxalate*)

$(COOC_2H_5)_2$

SPECIFICATIONS

Color and Properties:
Colorless liquid

Constants:
Ester—at least 97%
Sp. gr. 1.077 at 20°/20°C.
Wt. per gal. 8.96 lbs.
Acidity: Not over 0.1% as oxalic acid
Boiling point: 184°—185°C.

Solubility:
Miscible in all proportions with alcohol, ether, ethyl acetate, and other common organic solvents. Only very slightly soluble in water.

Derivation:
Esterification of oxalic acid

Method of Purification:
Distillation

Grades:
Technical 96-100% di-ethyl oxalate

Containers:
Steel or tin-lined drums
Glass bottles

Fire Hazard:
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An Editorial

Another Accusation

THE drug trade continues to be the subject of attacks. The latest one comes from the pens of Arthur Kallet and F. J. Schlink, of Consumers Research, Inc. Mr. Schlink will be remembered as co-author of "Your Money's Worth," the book which was supposed to expose the enormous profits in packaged goods. The Consumers Research, Inc. informs its subscribers regarding advertised articles, generally telling their composition and what the ingredients can be bought for.

To quote from the latest book:

"THE control of foods and drugs in America has been characterized by inexcusable official indifference and ignorance; such control has been hamstrung by a weak and nearly useless body of laws, State and national; there has been a progressive weakening of official activity and concern for the public health through the pressure of concealed commercial forces in close touch with food and drug administrators; control has been further weakened by an unfavorable body of court decisions."

How true is this accusation and what is going to be done about answering it? It is not for the drug trade to sit idly by and let there be even a partial excuse for such statements. The drug trade should rather be in the position of Caesar's wife. Practically all of the leading drug manufacturing houses are exceedingly careful in their insistence in maintaining such a position, but there can be no doubt that the public can generally buy products which are none too good if it is not careful about the name behind the product, and even then the buyer must be acquainted with what the names stand for.

ALL this is not as it should be. There should be no hesitation in the minds of the public about any product bought. All houses should be made to live up to the highest standards, for if such were the case much of the unscrupulous competition would disappear and cut price competition would largely be minimized.

Who Has Bassorin?

In November we published an article on mechanical laxatives which gave considerable attention to a product called "bassorin." Bassorin is the dried sap of a tree and has many times the swelling power of agar. As might be expected, many of the leading drug manufacturers of the country are searching for bassorin. Many of them have written and asked us to tell them where to get the product.

It was about four or five months ago that we first mentioned bassorin in the abstract of an article from a foreign journal. At that time we had inquiries as to a source of supply. We communicated with the ordinary sources of botanicals, gums, etc., but no one knew of it. Now some five months later there is still no one in this market who has bassorin.

A product produced in Germany containing bassorin as the main ingredient is selling successfully as a laxative in this country. Another product produced in France containing the dried mucilage of psyllium seed, together with agar and bassorin is also being sold here and used by physicians. Drug manufacturers are clamoring to enter into competition with these products but there is no one willing to make a profit by helping them in their problem.

We are not in the business of supplying such products but if we were it seems to us that before this we would have given some attention to location of supplies of bassorin. Only a few years back some of the importers were unwilling to take psyllium seriously, stating it was only a fad. What if it was only a fad? Many people have made and are still making real money out of it. Today it is imported and sold in volume probably greater than any other crude drug on the list. We would have liked to have had the exclusive handling of this fad during the first two years of its popularity. Also we would like to do some real work on bassorin and locate it about a year or two before anyone else locates it.

But we are in a depression and it is no time to chase rainbows. So we suppose most of those who might be able to locate bassorin will turn their attention to those items which are highly competitive and in which there is very little profit for fear that they might lose an order. In the meantime drug manufacturers can not have what they want.

• • •

Ten Years Ago

From our pages, January, 1923

Brooklyn, N. Y., has 186 manufacturers of drugs and chemicals according to a report by the Chamber of Commerce.

Less peppermint oil was exported in 1921 than in any year since 1891. Only 50,425 lbs. were shipped out.

• • • New and Non-Official • • •

• • •

It's an Ill Wind. . . . . .

Now that the coughs and colds season is on in full swing, the drug industry is a much more cheerful place. Here it is that everything is done to a cold but start it and between resistance builders, antipyretics, laxatives, inhalants, gargles, etc., the general tone of the industry is considerably improved.

Now if the resistance builders do not become too potent everybody will be happy.

• • •

Noxy in Verse Again

This department has had the pleasure of calling attention before to the charming custom of Mr. Geo. A. Bunting of brightening the Noxzema Chemical Co.'s annual report, already bright, with a bit of verse. This year, with due apologies to Bill Nye and the King's English, Mr. Bunting presents:

"Go, Little Blue Jar
Go bearing an honored name
'Til everywhere that you have went
They're glad that you have came."

• • •

The New Day Competition

Just as if they didn't have enough already to worry about, cosmetic manufacturers are now faced with a new competitor—none other than Wrigley's chewing gum, which, according to the advertisements, has a beautifying effect upon lips, mouth and chin.

We feel very strongly on this point right now. We have just been riding in the subway opposite a woman who chewed gum steadily and we are willing to testify that it had anything but a beautifying effect.

• • •

Speaking of Advertising

J. C. Chilcott, Ellery Mann and Carl White are all former advertising agency executives.

Life Savers has gone to the old reliable "halitosis" theme in its advertising. Will you ever forget those dramatic stories which climaxed with the inevitable . . . . *that's the insidious thing about halitosis?*

Gentlemen Jim Corbett, in his recent testimonial for Omega oil, spoke of its effect upon his "limbs." Now it's easy for us to understand why they call him "Gentleman Jim."

• • •

Cosmetics of the Stone Age

Recent investigations have shown that the Stone Age men of South Africa supplied the Egyptians with manganese. It seems that sophisticated Egyptian fashion called for manganese to adorn the eyebrows of Egyptian women.

As that went on about 5,000 or 6,000 years ago, it seems to establish cosmetic making as one of the oldest industries, second only to the drug business in antiquity.

• • •

Science and Counterfeiters

Those scavengers of this industry, the counterfeiters, are finding the path of iniquity an increasingly difficult one. The radio is the latest contributor to the good cause.

Many manufacturers, asking for labels over the air, have found themselves receiving imitation as well as genuine labels. As the senders-in sign their names and addresses in order to get the free bottle or free jar or whatever, the company investigators are put hot on the trail of the source of supply.

Drug Trade in Conference

TAXATION, and phases of report of Committee on Cost of Medical Care were among the liveliest topics considered at the annual meeting of the National Drug Trade Conference. The Capper Kelly bill was also endorsed, and legislation asked against drug counterfeiting. On the first-named subject the conference issued a "Stop, look and listen" warning to all branches of the drug trade that all proposals for federal legislation should be carefully watched, with a view to preventing additional discriminatory burdens being imposed upon the trade this winter. This warning was contained in the following resolution, offered by W. L. Crounse, Washington representative of the National Wholesale Druggists' Association, which was adopted after discussion:

> "Resolved that the National Drug Trade Conference strongly urges upon its constituent members the importance of following vigilantly, at the present session of Congress, all proposals designed to increase taxation, to the end that no additional burden shall be placed upon any branch of the drug industry."

With President Carson P. Frailey in the chair, after the report of the Treasurer was approved and the minutes of the Executive Committee meeting in November had been received, the first order of business was the report of the Committee on General Status of Pharmacy and the Drug Trade, submitted by Chairman R. L. Swain. After indicating opposition to the distribution of medicinal products through slot machines, this committee referred to the report on Cost of Medical Care. Drugs and medicines must be considered from the standpoint of the public health more than ever before, declared Dr. Swain in his report. He declared it may be necessary that trade policies be considered and revised. The drug industry, he said, is faced with the necessity of pulling itself together.

The Swain report referred to statement by the Committee on Cost of Medical Care that 72 per cent. of drugs and medicines are for self-medication. Patent medicines, it was said, in many cases are prepared, distributed and consumed without adequate supervision or control. Statement was made that by some, drugs and medicines have been regarded as commercial products, a "mere matter of barter and trade." The drug industry should become more closely identified with pharmacy, Dr. Swain suggested, and under certain conditions, manufacture of drugs and medicines would become completely professionalized.

"Change is the immutable law of progress," commented President Frailey, in throwing the Swain report open to discussion. Prof. J. H. Beale said the conference should be cautious about expressing itself on this subject. "If the medical profession is socialized, pharmacy will also be socialized," he warned.

Carson P. Frailey, president of the Conference, presided.

President Frank Blair of the Proprietary Association took issue with statements in the report on Cost of Medical Care, or that were based on that report. He declared that medical products not adequately supervised did not represent two or three per cent. of the total in dollars and cents. Some criticism of the present system, he said, took no account of the costly work of chemists and other experts. It meant that much present research work was wasted, if criticism were justified; which he insisted it was not.

Defending his report, Dr. Swain said that various small concerns without professional knowledge or proper supervision, make products for medicinal purposes. S. B. Penick said that the "copper kettle" man should be branded and put out of business. However, he opposed the report. Harry Noonan of American Pharmaceutical Manufacturers' Association, said that if the drug trade needed defense, it was only necessary to cite the report of the Department of Agriculture, Food and Drug Administration showing the care with which the trade operates and the efforts it makes to comply with the law.

Prof. Beale suggested that the language of the Swain report be modified, in the interest of clarification. Dr. Swain offered to delete a paragraph that had been criticized. On motion of E. L. Newcomb, the report was received, with the deletion made.

W. Bruce Philip, president American Pharmaceutical Association, and Counsel, National Association of Retail Druggists, then called the conference's attention to the probability that various state legislatures will be

asked this winter to consider plans to socialize the drug industry.

The motion of Dr. Newcomb was thereupon reconsidered and Dr. A. G. DuMez took the floor to declare that "it is foolish to ignore this report with which we are faced." If only two per cent. of medical preparations are prepared without proper supervision, he stated, it might be "dangerous to the public health." He said he could name various concerns making alleged medicinal preparations without supervision. Messrs. Noonan and Penick discussed the matter further and E. C. Brokmeyer, counsel for Federal Wholesale Druggists' Association, moved that the Swain committee give the matter further consideration and report later. This was done, with the result that, after the lucheon recess, Dr. Swain's resubmitted report was unanimously adopted, in modified form. In it, the paragraph complained of had been eliminated and a substitute paragraph inserted. This substitute paragraph read as follows, in essential part, after referring to the Committee on Cost of Medical Care estimate of the amount of prepared medicines used for self medication:

"While the greater proportion of such preparations are undoubtedly manufactured under qualified supervision, there are, nevertheless, a considerable number which are produced without such supervision. The drug industry should recognize its responsibility in this matter, to the end that the manufacture of medicinal preparations be confined to those persons and concerns whose equipment, facilities, and technical personnel are sufficiently adequate for the work undertaken."

The problem of counterfeiting drugs was brought up by Horace W. Bigelow, of the American Drug Manufacturers' Association. He declared drug counterfeiting is increasing to an extent menacing public health as well as the drug trade. "We feel," he said, "that we should have legislation that is drastic enough to properly punish people engaged in this racket. First, we should get a federal law covering the sale and shipment of counterfeit drugs in interstate commerce."

In that connection, Mr. Bigelow referred to a bill introduced recently in Congress by Senator Wagner of New York. This bill, known as S. 5149, is sponsored by the A. D. M. A. "If we can get action by Congress," said Mr. Bigelow, "we propose to go to the legislatures of several states where this evil is most prevalent, and later to other states, for the purpose of securing legislation that will punish people engaged in this counterfeit drug racket in those states."

A communication was read from Mr. Dunning, of Hynson, Wescott & Dunning, urging action against drug counterfeiting. Mr. Bigelow offered a resolution, which was adopted, as follows:

"Resolved, That it is the sense of the National Drug Trade Conference, in annual meeting assembled, that legislation by the Congress of the United States prohibiting the counterfeiting of drugs and providing suitable penalties therefor is urgently needed, to the end that the drug trade may have at its command, at the earliest possible moment, efficient means to combat the rapidly growing evil of counterfeiting drugs, which is a serious menace to the public health; and be it further

"Resolved, That similar legislation by the legislatures of the several states is also urgently needed; and be it further

"Resolved, That the president be, and he is hereby, authorized, empowered and directed to present a copy of this resolution to any congressional or state legislative committees which may be considering legislation to prohibit the counterfeiting of drugs."

Mr. Crounse said the N. W. D. A. governing body had no opportunity to consider this matter; therefore he withheld his vote, but he indicated he thought they would approve the proposal.

As to the Capper-Kelly fair trade bill, the Conference was advised that friends of that measure are concentrating efforts on the Senate; that the bill occupies a strong position before that body, and that a motion was about to be made to set a time for its consideration in the Senate. Forty-three senators were polled as favorable to the measure, with only 12 opposed to it, the balance being non-committal. "It seems reasonable to assume that the bill will pass the Senate when it comes up," was the assurance received by the Conference.

A. C. Taylor, Washington, D. C., read the report of the committee on Uniform State Narcotic Act. He told of a meeting in Washington, December 2. That meeting decided upon relatively minor changes in the draft of the uniform bill calculated to make it workable. President Frailey pointed out that this measure would do away with exempt narcotic preparations, inasmuch as wholesalers and retailers would have to buy such preparations on the basis of official narcotic order forms. The Drug Trade Conference, he said, heads up a piece of machinery embodying powerful trade and professional organizations throughout the country, charged with the job of seeing that recommendations for modifying the uniform bill are carried out. Secretary Kelley said that under the bill distribution of exempt preparations would be limited to physicians, dentists, veterinarians, and pharmacists. Samuel C. Henry expressed dislike to see cannabis included under a uniform state narcotic law. After discussion by several other delegates, the Taylor report was approved.

During temporary absence of President Frailey, Vice-President Hunsburger took the chair, and Prof. J. H. Beale submitted the report of the committee to prepare a table of potent and toxic drugs. He quoted several varying dictionary and legal definitions of a poison and pointed out that many beneficial drugs, besides numerous foods, and other substances may be poisonous in special instances. It depends upon the dosage. It being considered apparently impossible to define what constitutes a poison, said Dr. Beale, the only alternative is to make a list of substances which are poisons. The committee therefore submitted a provisional list for consideration by the conference and others. In making up that list, said Dr. Beale, the committee was guided by certain principles. One is that the purpose of the "poison" label is to protect the

(*Continued on page 29*)

Narcotic Control

One of the main problems before the entire drug trade is that of proper restriction of narcotics. During the past two years Harry J. Anslinger has been Commissioner of Narcotics. For the coming year he has reduced the quotas of narcotics to be manufactured here. While he has been in office narcotics manufactured abroad have steadily declined.

REDUCTION of narcotic quotas for 1933 has come as a surprise to many in the drug trade mainly due to the fact that influenza promises to be more prevalent during this year than during a year ago. The reduction in opium is from 126,300 pounds of crude opium imported for 1932 to only 100,400 pounds to be imported for 1933. The reduction in coca leaves is from 225,000 pounds of medicinal coca leaves for 1932, to 180,000 pounds of medicinal leaves for 1933.

However, the constant decrease in world production of narcotics during the past two years is largely due to the effective control of this trade which is now being exercised in Washington. Doubtless the present reduction is in large part due to the economic depression which naturally results in greatly decreased attention to sick people by physicians and therefore decreased use of narcotcis.

Operation under Commissioner of Narcotics, Harry J. Anslinger has been effective for the reason that the Commissioner has directed his main efforts towards the restriction of smuggling which was recognized as the main source of illicit narcotics when the Porter Bill was passed in 1930 establishing the office of Commissioner of Narcotics. Prior to the passage of the Porter bill, narcotic control came under the direction of the Assistant Commissioner of Prohibition, which office was occupied by Mr. Anslinger for a short time prior to his promotion to the newly created office.

Prior to his connection with the enforcement of the narcotic laws, Mr. Anslinger was for many years resident abroad in opium producing countries for the Department of Commerce. Therefore, the Commissioner has had at his command first-hand knowledge of conditions abroad, and has been able to turn this knowledge to effective control of smuggling. The progress of his activities in this direction can be readily traced in the record of seizures of large quantities of opium, morphine and heroin during his tenure, and also perhaps be demonstrated by a synopsis of the manufacture of narcotics by the major producing countries, as reported by the Permanent Central Opium Board of the League of Nations to the Council, for the year 1931:

		Production		
	Year	*Morphine*	*Diacetyl-morphine*	*Cocaine*
		Kg.	*Kg.*	*Kg.*
Germany	1929	5031	387	1826
	1930	1292	169	1153
	1931	836	58	1020
France	1929	4677	1343	911
	1930	3833	2216	831
	1931	2222	193	373
United States	1929	2605	....	846
	1930	1912	....	723
	1921	2455	....	870

	Year.	Morphine Kg.	Diacetyl-Morphine Kg.	Cocaine Kg.
Great Britain.....	1929	1536	223	238
	1930	1159	107	318
	1931	747	85	381
Switzerland.....	1929	(minus 1397	68	344
	1930	(minus 34)	4	328
	1931	807	31	155
Japan.....	1929	818	1590	1215
	1930	824	1396	1192
	1931	815	688	1008

In this table it will be noticed that the quantities manufactured by European countries show a decided decrease between the years 1929 and 1931, whereas the production of the United States remained practically the same over the three-year stretch, allowing for fluctuations due to influenza epidemics, etc. The obvious conclusion is that the decrease in European production has been due in large measure to effective international cooperation, directed by Commissioner Anslinger, in detecting origin of illicit traffic at source and stopping it before it reaches the borders of the United States. On the other hand, it demonstrates that our national laws have succeeded to a remarkable degree in the effort to confine to legitimate channels the distribution of narcotics produced within our own borders.

The Commissioner has given painstaking consideration to the legitimate requirements of the medical and dental professions for narcotics in the alleviation of suffering, and has invited the assistance of the various drug interests and the professions. He also realizes that those upon whom rests the responsibility of providing supplies of narcotics to satisfy medical needs earnestly desire a system of control that will prevent diversions into illicit traffic, and that they have no desire to profit at the expense of unfortunate addict victims. In fact, the manufacturers have in many instances exceeded the requirements of the law and regulations in assisting Mr. Anslinger in his efforts toward an even closer control of production and distribution, and this has been possible only because of the cooperative spirit in which he has presented his enforcement programs from time to time to the drug and professional interests, thus securing their help from a practical operating standpoint.

Mr. Anslinger is very actively engaged in the work in which the entire drug trade is interested, and that is the strengthening of state control of narcotics. For in making seizures which have not been shipped in interstate commerce, the federal government is forced to rely solely upon its taxing power for its actions. Proper laws for effective control of narcotics in all the States of the Union, backed by real cooperation between the federal and state enforcement officials would do a great deal to restrict the use of narcotics still further. Mr. Anslinger is proving to be an excellent man to bring about this desirable condition.

With the federal government confining its work mainly to the place in which it can act most efficiently—that is restriction of smuggling—and the state enforcement officials following the local violations within state borders, the leaks could be reduced to a point at which an almost ideal system of narcotic control could be brought about.

But the federal control is rapidly becoming as effective under Commissioner Anslinger as it can be, since it will be found that the prices of illicit narcotics have multiplied a great many times since he has been in control. And this is in the face of generally depressed prices for practically all commodities.

The drug trade in general likes Commissioner Anslinger because he is effectively and easily controlling a condition which the trade wants controlled. The trade hopes he stays because they feel that under him state cooperation in enforcement will be improved and effective control of narcotics will be a routine matter and a disagreeable problem will be removed from the trade.

Editor's Correspondence

Philadelphia.

Editor,
Drug & Cosmetic Industry,
Sir:

We are about to place upon the market a new line of cosmetics and we would feel lost without the many ideas and suggestions that one may constantly see in your publication.

In view of our many years of constant reading of the old "Drug Markets" and its newer and better successor, we have completed our files and so start the new year right.

THE HARMER LABORATORIES CO.
J. P. Harmer, President.

December 13, 1932.

Editor,
Drug & Cosmetic Industry,
Sir:

Just a line to thank you for the publicity accorded to Squibb Lanolin Cream and Squibb Cleansing Cream on Page 422 of the Drug & Cosmetic Industry of November.

Again you have done a most excellent job in reproducing these two new packages in the illustration.

I am still using the illustration of Squibb Oral Perborate which you included as an insert in the April issue of your magazine. This is the best illustration of that handsome package that I have yet seen.

E. R. SQUIBB & SONS,
F. H. Keeler,
Sales Manager, Toilet Products.

London

Editor,
Drug & Cosmetic Industry,
Sir:

We take this opportunity to say that we have derived much information from the editorial and advertising pages of your publication.

Wishing your journal the continued success which it undoubtedly deserves, we are,

LENNON LIMITED.

Cosmetics and Their Reactions on the Skin

Recognition by the medical profession of the fact that cosmetics have an important place in the daily life of our people is clearly illustrated by this radio address which was broadcast under the auspices of the New York Academy of Medicine, and is published here with permission of the Director of the Medical Information of the Academy. Dr. Eller indicates cosmetics should not be condemned because of idiocyncrasies of individuals.

By Joseph Jordan Eller, M. D.

Published under the auspices of the Bureau of Medical Information of the New York Academy of Medicine.

PHYSICIANS, especially those interested in the treatment of skin diseases, have come to realize that serious thought and study must be given to the use of the various cosmetics. The women of today should at least choose their cosmetics with the same care that they choose their clothes. A woman, having the confidence that she is looking her best reflects this comforting thought in her bearing and composure. Nearly every woman uses cosmetics, whether it be in the form of powders, rouges, skin tonics, so-called nourishing creams, cleansing creams, astringent lotions, hair lotions or hair dyes. These are used to such an extent that it places the cosmetic commercial field among one of the foremost financial industries in the world. The use of cosmetics has become such an important factor in daily life that members of the medical profession, particularly skin specialists, must do all they can to gain additional knowledge concerning their use and dangers. This has become very necessary since many women prefer to go to their physicians to seek such advice. The reason so many skin irritations result from the use of cosmetics is usually not due to inferior products but because of the individual's skin. There is no one cosmetic; whether it be powder, cream, lotion or soap that is suitable to all kinds and textures of skin. People with dry skin cannot safely use the same type of cosmetics as individuals with oily skins. Thus people having a dry skin must not use strong soaps or powders containing lead or mercury. They should use cleansing creams, and fine mixtures of delicate powders not containing any lead or mercury. These metals are used in many powders to give them the adhering quality. Those people who have a tendency to oiliness in the skin should use soap and water, which acts as an astringent, and has a tendency to counteract overactivity of the oil glands. These women should not use greasy creams on their faces, as they already have too much oil in the skin. They are apt to produce an oily complexion by its use. They should also avoid oily types of rouge. Even though the rouge be powdered, it may contain a great deal of oil, and this may be tested by putting a little of the rouge on tissue paper, and if oily, it will leave an oil spot. People with oily skins can use powders containing lead or mercury for adhering quality as these powders will not irritate that type of skin. On the other hand an oily rouge can be used safely on a dry skin.

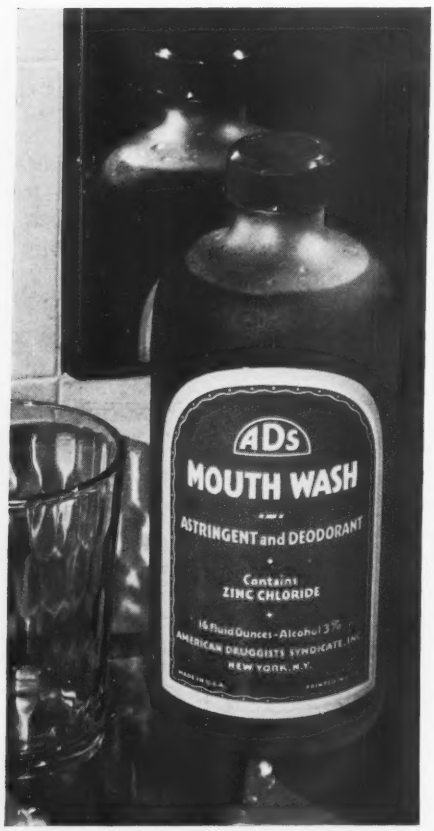
Regarding the use of hair dyes, the prejudice against this is being dispelled. Its use at times seems almost to be a necessity to the happiness of women whose hair has become prematurely gray. Hair dyes, especially the vegetable ones, are harmless, excepting to those people who are particularly sensitive to them. The use of hair dyes causes a severe skin inflammation in approximately one person out of every fifty who receive this treatment. This untoward result is usually not of any serious danger but may cause the individual considerable discomfort for three or four weeks. Such a sensitive person must never use that hair dye again. Nowadays one can detect these sensitive skins by means of the Patch Test. A few drops of the hair dye is applied on the patient's skin and covered with a piece of linen about the size of a postage stamp. Over this is placed a small piece of rubberized silk and kept in place for twenty-four hours. At the end of this time the cover over the drop of hair dye is removed and the skin examined. If the patient is sensitive to the dye an intense inflammation appears over this area. Such a patient should be advised against the further use of the hair dye as she undoubtedly is a sensitive subject.

(Continued on page 31)

Nyal has recently repackaged part of its line as shown above. Aside from harmony in appearance, the packages all carry out an orange and black color scheme. (Picture courtesy of Armstrong Cork Co.)

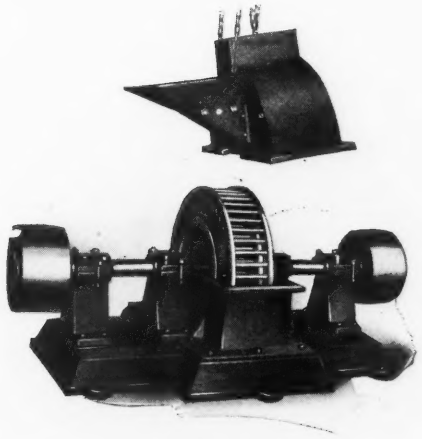
At the lower left is the new mouth wash package by American Druggists Syndicate, Inc. The design is carried out in various shades and tints of red. (Picture courtesy of Armstrong Cork Co.)

Three new items have been developed for the Colonielle line, a silver and black powder box, lipstick and rouge case. The novel design and the interesting effect produced by the design of the powder box is shown in the illustration below.

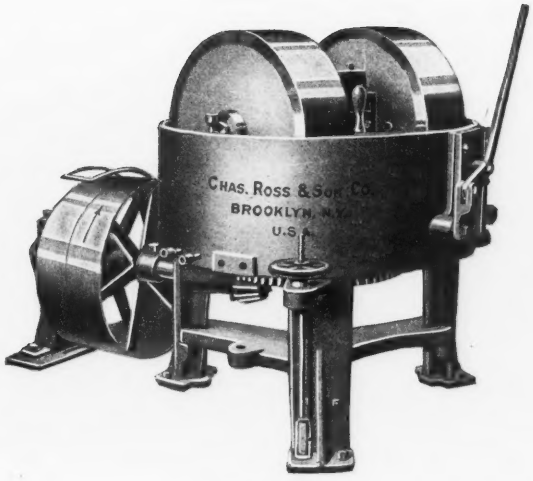


Dry Milling

By Francis Chilson



Disintegrator



Chaser

FEW problems of production are more interesting than dry milling. In addition to the selection of the proper type of mill for a related group of products there is also the problem of feeding and discharging with a minimum of dust. It should be a simpler matter to select a mill for dry milling than it is for wet milling but owing to scarcity of literature on the subject and the conflicting claims of manufacturers, it isn't. Fundamentally, of course, the physical structure of the material determines very largely the choice of a mill. But it doesn't *always* follow that a mill will grind with equal efficiency two materials of approximately the same physical structure because of variables like the tendency to arch and to adhere to the milling surfaces.

We think that errors are made in selecting mills simply because neither the manufacturer of the mills nor the manufacturer of the product to be ground gives more than a casual study to the physical and chemical nature of the material before selecting equipment. Ordinarily the factors to be investigated are the abrasiveness of the material; its adhesiveness; its arching factor; its heating potential; the stage of reduction (the difference between the mesh of the material before grinding and that of the finished product); and finally its chemical nature insofar as the heat of friction tends to cause reaction, discoloration etc.

In this paper we are of course concerned only with the final stage of grinding—milling. It is postulated that materials usually must first be reduced to milling size by means of crushing or shredding. In our trade the shredding process is usually confined to the reduction of crude drugs. It would require a volume to describe all the shredders or grinders on the market. Most of them are constructed in such a fashion that progressive reduction takes place between a revolving element and a stator or between two revolving elements moving opposite to each other and reducing the material between teeth, ridges, grooves, etc. The product of such grinders is comparatively coarse at best and as a rule requires further reduction in some form of mill. But what form of mill? All we can do is to offer data on the various types available, the most common of which are the pebble mill, the ball mill, the mushroom

or pot mill, the buhr stone mill, the chaser, the various types of high speed pulverizers, and the colloid mill.

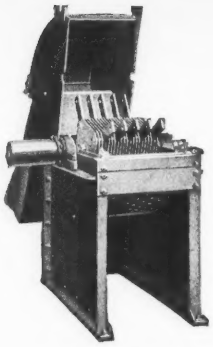
The pebble mill is an attrition mill in which the material is reduced by concussion between tumbling flint or porcelain pebbles and by attrition between the pebbles and the revolving wall of the mill. We believe that evidence must still be produced to prove that, given enough time and the proper grinding charge, any other form of mill can effect a finer reduction than a pebble mill. We've heard manufacturers of other types of mill claim that their's could mill finer than a pebble mill but we've never seen any proof of this. We do not wish to go on record as stating that a pebble mill cannot be beaten, we simply haven't yet seen any evidence that it can be.

However, this does not prove that the pebble mill is an efficient mill. For many products it is not. To grind properly the mill must be approximately half full of stones, roughly five times the weight of the charge; it must be in operation anywhere from three to twenty-four hours depending on the product; it is not easy to load or discharge when only one floor is available; it is not easy to clean (especially the pebbles) when the mill is used for several different products; it possesses tremendous starting inertia and requires 20 to 25% more horsepower to start it than is needed when the mill is in operation; because of the quantity of pebbles necessary, the size of the mill must be large and the only way to increase capacity is to increase the size of the mill still more; finally the weight of the mill is excessive. Nevertheless on color work and on material requiring the utmost impalpability the pebble mill still serves incomparably.

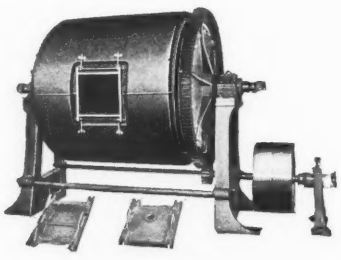
About all of the objections to the pebble mill apply also to the chaser, which has the added disadvantage of being dusty when used for dry materials. Only a few are still used by the trade and these are usually used for milling crude drugs.

The term "ball mill" is often used as a synonym for pebble mill. But the ball mill is a distinct type. There are two common designs; the so called "pot mill" an iron mill somewhat apple shaped and using three or four iron or steel balls; and the mushroom shaped, true ball mill, consisting of a circular tube in which a cannon ball revolves. Mills of this type have a milling action somewhat similar to that of a pebble mill. They are structurally limited to very small batches and are usually used for resinous or poisonous drugs.

The buhr stone mill is an old reliable whose makers insist that it will grind as fine as a pebble mill. Whether it will or not we can't say with authority. All we know is that both types of mill are used on the same kind of products. The buhr stone mill is a better production machine than the pebble mill. It is a continuous mill and is capable of an enormous daily production. The mill is fed through the eye of the upper stone and is ground between grooved faces, being discharged at the periphery. Whether this type of machine will mill as well as a pebble mill is a moot point, but it seems to us



Hammer Mill



Pebble Mill

High Speed Fine Grinder

the time differential is so great that a batch could be run several times through a buhr stone mill in the same period of time required for a pebble mill grind. The pebble and the buhr stone mills have certain advantages over pulverizers presently to be discussed but only when employed for high arching and adhesive materials. In the one case the surging of the pebbles keeps all of the materials in a continual flux; in the other a screw can be employed to feed the mill.

You can't hurry either of these mills. If you speed up a pebble mill centrifugal force will defeat your purpose; if you shorten running time your product will not have been milled perfectly. If you use a wrench on a buhr stone mill in the hope of improving the grind by tightening the stones you will only wear them off and heat the material excessively. If you try force feeding it beyond its normal intake, you will get the batch through but it won't be milled properly.

(*Continued on page 76*)

What's New in Medicines

Viropect—Contains cupric acetate, drosera (sundew), ipecac, antivirus of the whooping cough germ and its related bacteria in homeopathic dilution. Powders for whooping cough. Dr. Willmar Schwabe, Leipzig, Germany.

Xanthoval—Combination of diethylmalonyl urea with dimethylaminophenyldimethylpyrazolone and trimethylxanthine valerianate, and cocoa. Analgesic in neuralgia, migraine and like. Chemisch-Pharmazeutische Laboratorium Dr. Pietschmann, Vienna, Austria.

Atempol—Contains trimonobromo-diethyl-acetyl-carbamidoxyl carballyate. For sleeplessness. See Pharmazeutische Presse, 1932, page 71. Pharmazeutische Werke Norgine, Prague, Czechoslovakia.

Gold Pills Marfried—Contains 20% basic magnesium carbonate, 80% sugar, essential oils, predominately cinnamon and anise. For coughs, hoarseness, asthma, etc. See O. Keller, Apotheke Zeitung, volume 47, page 701, 1932. G. Richter, Madgeburg, Germany.

Grips Drops Marfried—Essentially 10 parts of rectified oil of turpentine and 2 parts ether with peppermint oil. See O. Keller, Apotheke Zeitung, 1932, volume 47, page 701. G. Richter, Madgeburg, Germany.

Iodosalest—Clear liquid, containing 1% iodine as nitrogen iodide, 1% salicylic acid, 3% camphor and ½% each of menthol, rosemary oil, methyl salicylate; also alcohol, soap liniment and ammonia. For acute and chronic muscular rheumatism, gout, etc. Apotheker Ed. Rave, Chemisch-Pharmazeutische Laboratorium, Dortmund-Berghofen, Germany.

Kamillosan (Kamillasethin)—In form of sticks. (See Pharmazeuitsche Zentralhalle, volume 63, 1932, page 115). To still pain and prevent infection after extraction of teeth. Chemisch-Pharmazeutische A.G. Bad Homburg, Werk Frankfurt-am-Main.

Lomaplast—Elastic plasters. Anhydroplast is water-tight, rubber plaster and water-tight dressing for wounds. Unguentaplast is plaster dressing with coating of salve in finished state. Lohmann A.G., Fahr am Rhein, Germany.

L. P. C. Pyocid—Prepared from special fractions of carvacrol group and carvoquinones, dissolved in pure alcohol. Oil of eucalyptus is added to prevent flocculation or crystallization and produce desired viscosity. For gingivitis, paradentitis, stomatitis. (See Haubeil, Deutsche Zahnaerztl. Wochenschrift 1932, number 3. Deutsche Lupocid Gesellschaft m. b. H., Karlsruhe, Germany.

Tonicum Dr. Klopfer—Contains strychnine, nux vomica, nuces kolae, calcium glycerinophosphate, zinc phosphate, sodium biphosphate. Treating psychic and physical depression and weakness, sexual neurasthenia, etc. (See Planer, Deutsche Aerzte Zeitung, 1931, number 291). Chemische Werke Dr. Klopfer G.m.b.H., Dresden.

Aknesan—Consists of zinc oxide-oleate liniment, unguentum elemi, zinc oxide, phenol, salicylic acid. For acne. Hirsan Gesellschaft, Leipzig.

Ande—Sodium hydroxide solution, 5%, colored with fluorescein. Removing corns. (See C. Griebel and F. Weiss, Zeitschrift Unterss. Lebensm., volume 64, number 3). A. Krause, Duesseldorf, Germany.

Antischin Dressing for Burns—Impregnated with prodidoform. Latter is analgesic and is adherent to dressing not falling off or mixing with secretion from burn. Verhandstoff Fabrik W. Soehngen & Co., Wiesbaden, Germany.

Azoiod—Diaminobenzene-dihydro-iodide. Powerful antiseptic for internal and external use as well as for all purposes in iodine therapy. (See Pharmazeutische Presse, volume 37, 1932, page 127). Chemisch-Pharmazeutische Fabrik Dr. Med. Hubold & Bartsch, Gruenheide i. d. Mark, Germany.

Asthmacedol Cigarettes—Composed of stramonium leaves (Jamestown weed), 50 parts, one part of potassium nitrate and enough hyoscyamus leaves and lobellia infl. leaves to make 100 parts. For bronchial asthma. Wilh. Ploenes, Ahrweiler, Rheinland, Germany.

Drula Soap—Superfatted, neutral soap containing bismuth oxychloride. For skin infections, pimples,

freckles, redness and like. Chemisch-Pharmazeutische Laboratorium Dr. O. Druckrey, Quedlinburg, Germany.

Imadyl Roche—Imadyl bath tablets containing 0.05 gram each of histamine and Imadyl salve containing 2% histamine. Electrophoretic treatment of rheumatic diseases (myalgria, neuralgia, arthralgia), furunculosis, pneumonia, pleurisy, etc. (See Deustche Med. Wochenschrift, volume 58, 1932, page 1009). Chemische Fabrik F. Hoffmann-La Roche & Co., A.G., Berlin, Germany.

Meo-Voss—Contains betula alba (European white birch), flores lam., capsella bursa-pastoris (Shepherd's purse), flores gelsemium, nettle, folia trifolii fibrini, glycerine, alcohol, distilled water and sulfur. For rheumatism, gout, sciatica and nerve pains. (See C. Griebel and F. Weiss, Zeitschrift Unters. Lebensm., volume 64, number 3). Chemische Fabrik Puttendoerfer & Moreau A.G., Berlin, Germany.

Roebarty—X-Ray contrast medium. Consists of purest barium sulfate for internal and reactal administration. Saccharin Fabrik A.G., vormals Fahlberg, List & Co., Madgeburg-Suedeost, Germany.

Ruwassan—Consists of wheat starch paste and squeezed linseed. Dietetic remedy for stimulating digestion. (See C. Griebel & Weiss, Zeitschrift Unters. Lebensm., volume 64, number 3). Ruthmann & Co., Leipzig, Germany.

Spasmopurin—Contains two dimethylxanthines, theobromine and theophyllin in optimum proportional quantities. Marked spasmolytic, diuretic and bronchodilatatory properties. For bronchial asthma, spasmodic conditions of any etiology, dysmenorrhoea. Spasmopurin sticks used specially for treating bronchial asthma. Preparation can be injected in severe cases. Spasmopurin ampulles suitable for intravenous and intramuscular injections. Dr. R. and Dr. O. Weil, Frankfurt.

Staphocolin—Contains antivirus of staphylococcus and of bacterium coli in salve form. Treating inflammations of nose and auditory system and in all skin diseases, in which skin and intestinal bacteria cause disease. Dr. Kade's Medizinisch-Pharmazeutisches Fabrikations Geschaeft, Berlin, SO 36, Germany.

Sweatosan Tablets—Contain camphoric acid, calcium lactate, extract of dried salvia (sage), tannic acid, menthol. For abnormally increased perspiration, particularly night sweating in lung diseases. Dr. Christian Brunnengraeber, Chemische Fabrik & Co., m.b.H., Luebeck, Germany.

Ultraferran—Contains colloidal iron in tablets containing 6.6 mgm. of iron. For anaemia, loss of appetite, etc.

Immetal—Di-iodo-erucic acid isobutyl ester. Light yellow, oily, sterile liquid insoluble in water. Iodine content 35 to 36%. Specific gravity about 1.25. Made by esterification of di-iodo-erucic acid with isobutyl alcohol. For arthritis deformans; as X-ray contrast medium in hysterosalpingography and myelography; also as ingredient of wound salves. Total dose 5 to 10 cc. (starting dose 1 to 2 cc.) in arthritis, 10 to 15 cc. for hysterosalpingography and 1.5 to 2.0 cc. for myelography. I. G. Farbenindustrie A.G., Leverkusen am Rhein, Germany.

Preloban—Prepared from anterior lobe of hypophysis. Contains hormones found in this gland in stable and biologically detectable form. For obesity caused by endorcines; for stimulating male sexual glands in all sexual disturbances of somatic nature; also treating disturbances of female sexual glands, such menstrual disturbances; also for hypophysic cachexia, migraine, psoriasis, loss of hair, etc. I. G. Farbenindustrie A.G., Leverkusen am Rheim, Germany.

Adrenal Inhalat Esseff—Liquid for inhalant purposes, containing adrenalin. Solution is stabilized to pH four to five. For bronchial asthma, bronchitis, grip, croupy pneumonia, pulmonary emphysema, laryngitis, pharyngitis, tracehitis, rhinitis, hay fever, etc. Sauerstoff Fabrik, Berlin G.m.b.H., Berlin.

Argolaval—Two per cent. solution of silver hexamethylenetetramine-nitrate. Sold in 1.10 dilution. Pure dry product is insoluble and used for argaloval salves and argaloval eye salves. Albert Mendel A.G., Templehof-Berlin.

Atempol—Labile compound; in state of equilibrium consists of tri (monobromodiethylacetyl)-(beta-oxytricarballyl)-triurea. Soporific. Deutsche Pharmazeutische Gesellschaft Norgine m.b.H., Berlin, Germany.

Belladenal—Tablet contains 0.0025 gram bellafolin (pure belladonna total alkaloid) and 0.005 gram phenylethylbarbituric acid. For irritations and pains as in migraine, angina pectoris, cerebral sclerosis, bronchial asthma, whooping cough, dysmenorrhoea, chorea minor, postencephalitis, epilepsy. Dose one to four tablets per day for adults; for children under 5, 1 to 4¼ tablets per day; 5 to 10 years, 1 to 4½ tablets per day. Sandoz A.G., Nueumberg.

Beridormin—Bromo-diethylacetyl-carbamide. Sedative and soporific. Tablets; packages containing 10 tablets up to half gram. Chemische Fabrik Beringer G.m.b.H., Oranienburg, Germany.

Hemostra Roche—Sterile solution of tryptophan and histidine. One cc. contains 0.02 gram tryptophan and 0.04 gram histidine. F. Hoffmann La Roche & Co., A.G., Berlin, Germany.

Leptaxin—Contains heptandrin and various plant extracts. For regulating stool. Dr. A. Brettschneiders Apotheke, Berlin.

Nippomint Fluid—Alcohol-free distillate from peppermint, oil juniper oil, eucalyptus oil, lavender oil, wintergreen oil, star anise oil, Roman chamomile oil, petit-grain oil and pink flower oil. Internal and external treatment of headaches, migraine, coughing,

(Continued on page 76)

Dry Rouge*

One of the largest selling cosmetics is dry rouge. This article tells proper ingredients of this product, as well as the proper methods of manufacture.

DRY rouge is one of the largest selling cosmetics and the least known insofar as composition is concerned. This is undoubtedly due to the fact that most of the rouge sold in this country is made by private label houses. Only a few manufacturers make their own. This situation is perhaps fundamentally sound and economical, but notwithstanding more should be known about rouge composition and manufacture in order to insure intelligent purchasing.

In a previous paper we indicated the factors by which a good rouge may be judged. We repeat: The best rouge is as smooth as silk. Some of the rouge on the market is almost as coarse as pumice stone. Rouge should spread evenly and easily. It should not require much rubbing to apply it properly. The color should be uniform. It should come off easily on the puff, but still the cake should not be soft and crumbly.

The first of these qualities is due primarily to the quality of the talc employed in the formula, and next to the manufacturing process through which the rouge is passed. No one can make a good rouge with a poor talc. The talc should be very fine and should possess an unusually good slip. The second factor, the process, will be discussed below.

The next element governs the consistency of the cake. It is the binding agent. Some employ starch with a mixture of fats. Others use dextrose, accacia, tragacanth, etc. The latter two if not used with discretion are likely to make the cake hard and grainy.

The customary formulas call for the use of talc, titanium or zinc oxide, starch, the binding agent, precipitated chalk and color.

These raw materials are combined in a process which is by no means simple—and invariably so messy that most manufacturers prefer to purchase rather than to make rouge. There are two processes for making rouge, each of which has its adherents; namely, the wet process and the dry process.

In the former the color is put into solution and incorporated in a batch mixer, after which the batch is dried and re-milled. In the latter process the product is made progressively with dry colors. (In this connection some very interesting developments in manufacturing procedure have recently been perfected which produce a cake of exceptional quality.)

The wet process requires the following equipment: a batch mixer of the heavy duty "mass" type; a drying oven; a pebble or buhr-stone mill or a disintegrator. The dry process simply requires the mill and sometimes an extra dry mixer depending on the type of mill used. The pebble mill for instance will develop the color alone; the buhr stone mill requires pre-mixing. In addition to the above both types of rouge require a granulator or a granulating seive and suitable presses.

There are several variations of the general procedure followed in making wet rouge of which the following is one method: The batch is weighed off, sifted and dumped into the mass mixer where the color solution is added and the mixer operated for several hours. The mass is then spread out on trays and dried in ovens. After this it is dumped into a pebble mill containing a grinding charge and milled for five or more hours. The perfume is added about an hour before the run is finished so as to insure adequate dispersion. The charge is dumped then and the binding agent, if it is in solution is added, the batch mixed, run through a coarse screen and then pressed. A few makers reverse this procedure in some particulars. Milling the color first, making the mass, and granulating and drying last.

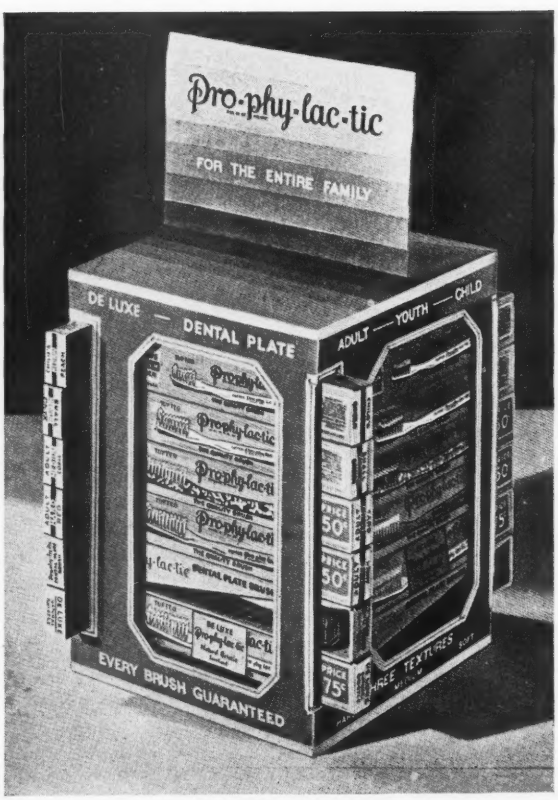
The dry method is simplest. The color may first be extended by adding it to precipitated chalk and milling. This is then mixed through the batch, which is then transferred to a pebble or buhr stone mill and milled the required length of time. The batch is again mixed and while mixing the binding agent and perfume is sprayed in. Pressing follows directly.

The whole procedure requires such an accurate knowledge of color, such careful control of procedure and so much specialized equipment that none but the largest manufacturer would be justified in undertaking to make his own dry rouge. But it is highly important for the seller of rouge to know exactly how it is made and of what it is composed in order to buy intelligently. The process of making rouge has heretofore been regarded as very much of a secret and the requirements of secrecy have in some instances been added to the price. Excepting for the mess inevitably caused by handling such a great quantity of colors, it is not any more difficult to make a rouge tablet than it is a medicated tablet, and it is by no means as complex as the making of some tablets.

Selling Through Displays

SELLING has come to be a very complex job. Competition has made it so. The public hasn't changed much; it still needs vast quantities of goods of all kinds. The trouble is that the lock on the pocketbook has become a bit rusted—assuming the existence of a pocketbook—and the job of selling has narrowed down to the problem of finding something else besides banana oil for its rusty hinges. Because of intangibles involved, it is an extremely difficult thing to select for emphasis the right selling method. The successful sales-manager is a composite of psychologist, sociologist, economist, prophet and panhandler. He has so many tools at his disposal that it is not easy to select the best one.

Direct selling as exemplified by hoofers, detail men and demonstrators constitutes the personal method. Then there is a vocal tool, the radio, which enables the salesmanager to talk to a great many people. The only weakness in this tool is that the potential customers are not in the stores where the goods can be exhibited even as the spiel is given. They are home and by the time they happen to pass through stores where the vocalized merchandise is sold most of them will have forgotten the spiel. Radio is an indirect method of selling at best. It has its great advantages and also its serious disadvantages, as many manufacturers have discovered to their regret—*too late*. The third tool is visual selling," in other words, the various forms of printed advertising. This embraces not only newspaper and magazine advertising; it includes the package and also



display carton or device, which is the principal concern of this paper.

The display device. We have heard a lot about its various forms. We've even heard that there is no longer any room in the modern store for display packages, because the advance of open display merchandising has doomed it. Like all generalities this is partly true, especially in the cities of New York, Philadelphia and Chicago, which are loaded down with chains whose space is worth a dollar a pound or what have you. But even in the busiest chain your display will be given space in direct proportion to its novelty and cleverness.

Consider the dramatic display of Ferron Oil. This is a rust preventative. It isn't the sort of product upon which advertising could be lavished, but it had to be sold and this is how it was done:—Two bottles were set into a folding display carton. One contained water and a bit of steel wool. The other contained water, steel wool and a bit of Ferron Oil. The wool in the water bottle became rustier and rustier; that in the bottle containing Ferron Oil remained untarnished. Effective? Dramatic? You bet!

You need some sort of display package or device in present day selling, but you can't expect to get space for an ill conceived and poorly executed monstrosity. You can't expect to get space for a display package or device that takes up half an acre of shelf, counter or floor space. The problem you've got to meet is the basic one that the breaks are given to the best known and most widely advertised products. Their display packages will be given preference over yours, and this is just as it should be, because it is the merchandise which moves most rapidly. But regardless of the opposition you can get your product up in the front row of any store if you design it cleverly. Pull the Ferron Oil stunt—the old bull-frog-in-alcohol trick. It will interest the drug clerk and the store manager, and ten to one it gets into the show window or on the counter. Originality. Novelty. Human interest. These are the qualities that count in designing the display device. And in these days when average manufacturers lack funds for aggressive magazine, newspaper and radio advertising, the display device is doubly important.

Despite these obvious facts we seldom see really well conceived display devices, but when we do, we only catch a glimpse because of the crowds around them. Americans are perhaps the most curious people in the world; they'll gather around to watch a man digging a ditch; they'll gather about a show window to stare at an interesting display device, especially if it appeals to our Yankee mechanical instinct or our liking for the unusual.

Each and every product presents an individual problem. It must be studied as an entity before a dramatic display can be devised for it. There are many materials with which to work. For some products a folding carton may fulfill the purpose. The Ferron Oil display used a carton and the regular bottles for centerpieces. The Prophylactic Tooth Brush em-

ploys a skeleton rack. You may use lithographed metal; you may employ any one of the numerous plastics available.

There are many practical ways to approach the problem. A few suggestions may help. The package should be the center of interest. The display should be compact. It should be as attractive as art can make it. It should be dramatic by showing the product in use. And if possible to make it so it should be useful apart from its display function. In short, it should be unusual ingenious, dramatic and useful.

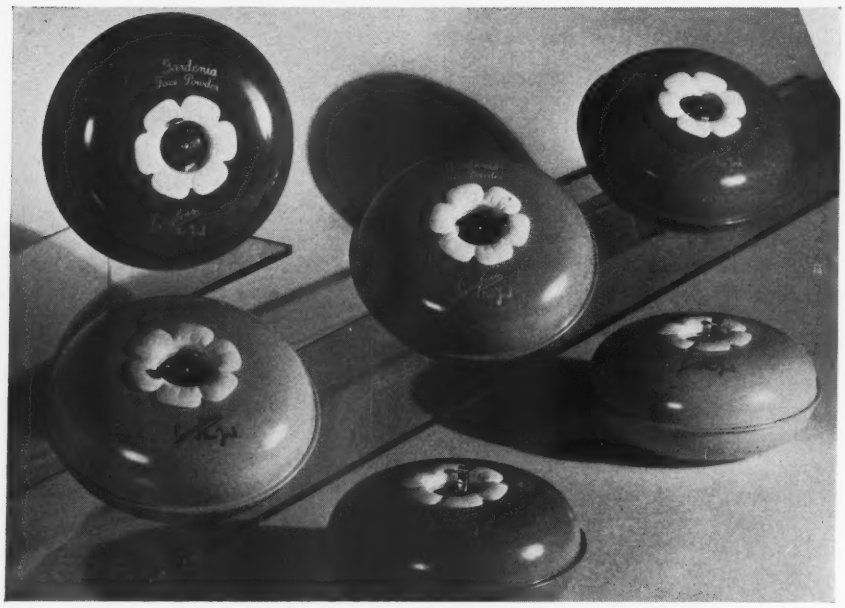
Drug Trade in Conference

(*Continued from page 18*)

public. Another is that the warning effect of the "poison" label should not be lost by using it on substances which may be poisonous only if used to excess. A third was that compounds of poisonous substances with other substances should not be labeled "poison" unless the toxic ingredient is strong enough to be poisonous in fact. A fourth was that prescriptions containing poisons should not be labeled "poison" unless the prescriber so directs. Also, it was held that poisonous preparations for external use only should be so labeled; that veterinary preparations should be labeled "not for human use."

Dr. Beale stated that his committee had worked on the problem referred it for two years or more. He thought the drug trade should get the sense of the medical and pharmacy professions on the problem. He recommended therefore that the report and list be distributed to organizations of those professions and other experts with a view to considering changes and amendments to the list; that the committee should consider suggestions from such sources and should make a further report to the Drug Trade Conference.

R. L. Swain, a member of the committee, suggested that the poison list, as finally decided upon, should be



Langlois of United Drug is featuring the new Gardenia Face Powder packaged as shown above. This bomb-shaped metal package is furnished in a variety of pastel shades so that milady may secure one to match the color scheme of her boudoir. The handy, slot-type shaker top makes for easy application on the puff and prevents spilling when traveling. Its convenient size makes it easy to handle while the distinctive shape assures against its being accidently knocked over. (Picture courtesy Consolidated Safety Pin Co.)

The S. M. A. Corporation has introduced a new product, Cod Liver Oil with Carotene, shown below. This is believed to be the first time that the carotene pro-vitamin A has been used in combination with cod liver oil.

included in the U. S. P. and N. F., pointing out that such inclusion would insure periodical consideration of the list for revision, possibly. Dr. S. L. Hilton expressed the belief that an authoritative list of poisons would be desirable for the retail pharmist for his guidance in dispensing medicinal preparations. He said that there are a large number of manufactured drug preparations which are not labeled "poison," which should be so labeled. He cited mercuric ointments and strychnine tablets as articles which might be taken by children, poisoning them.

Dr. DuMez said that a pharmacologist or toxicologist would probably prepare a different list than that submitted; that there were many different views and angles to the question of what is a poison, but that the committee had tried to deal with the subject in a practical manner. Dr. Beale said that his list is shorter than the list of poisons under some state laws. He stated that the committee relies on manufacturers and wholesalers to help it out in settling the problems refered to it.

P. I. Heuisler submitted a report as delegate to the conference on simplification of glass containers, held in Washington, December 12, attended by representatives of the Bureau of Standards, Agricultural Department, and manufacturers of glass bottles. He said it had been decided to abandon the original plan to include all kinds of stock bottles. Those now included are all kinds of ointment jars, and the following prescription bottles: narrow and wide mouth rounds, narrow and wide mouth French squares, oblong A. D. M. A., standard blakes, wide mouth, milk of magnesia, small tablet bottles, and Paris squares and bottles of similar shape.

Mr. Cloughly called attention to evils growing out of chain stores in other lines going into the handling of drug products, particularly in Texas. One chain, he said, handles all drug lines except prescriptions. One chain of nine stores is purchasing $20,000 of drug products monthly from wholesale druggists. If this sort of thing continued, he added, it won't be long before the Drug Trade Conference is known by some other name. A committee was appointed to look into this matter and report at the next meeting. Mr. Swain pointed out that distribution of patent medicines is unrestricted. He thought that the use of the words "patent or proprietary" medicines in state pharmacy laws is unfortunate.

Chairman Henry reported for the Nominating Committee a recommendation that all the old officers be reelected. This was done as follows:

President, Carson P. Frailey; Vice-President, Ambrose Hunsburger; Secretary, E. F. Kelly; Counselor to the United States Chamber of Commerce, S. L. Hilton; Members of the Executive Committee were also named as follows: Carson P. Frailey, Ambrose Hunsburger, E. C. Kelly, W. L. Crounse, Henry Noonan, P. I. Huiseler, A. C. Taylor, A. G. DuMez, R. E. L. Williamson.

Cosmetics and Their Reactions on the Skin

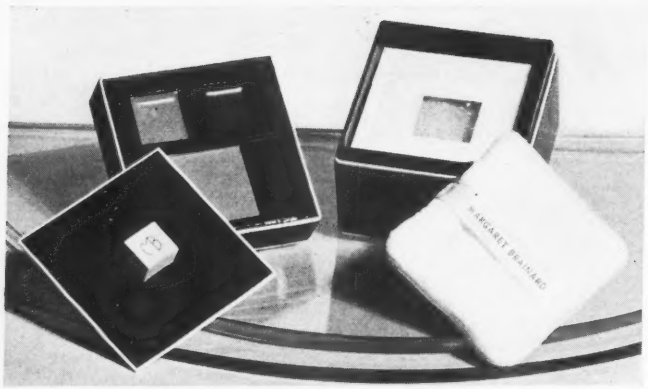
(*Continued from page 21*)

Regarding the safety or danger in the use of cosmetics, generally speaking most of them are harmless. Occasionally a person may be sensitive to some type of cosmetic or to some particular ingredient in the cosmetic, in the same way that many people are sensitive to the hair dye. This unusual sensitiveness is usually not due to faulty products, or to impure ingredients but to some peculiarity in the individual's skin. This sensitivity makes the skin react violently to even very small quantities of some particular ingredient in the cosmetic, which may be non-irritating to millions of other users. When a person is advised that she has this unusual sensitivity to some one cosmetic she should discontinue using it. It is advisable that these individuals be tested out to new cosmetics by means of skin or patch tests before using them.

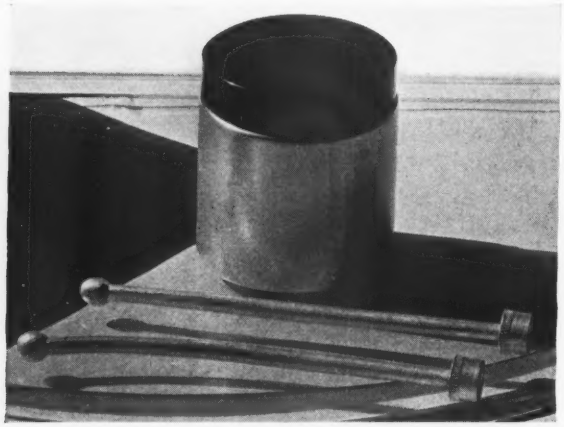
I shall say a few words regarding the peeling of the skin which is now used so frequently in order to decrease scars, wrinkles and pitted depressions from a previous case of pimples and blackheads. Skin peeling may aid the skin's appearance greatly when done by physicians and cosmeticians who understand the physiological reactions of the skin to treatment. They must be experienced enough to know how to limit the depth of their peeling, and they must not use any chemicals which might endanger the health of the individual by their absorption. Peeling the skin with the wrong chemicals might even result in death as has occurred in two patients in California not so long ago whose faces were peeled with carbolic acid, and who died from the absorption of this chemical. On the other hand, I have seen very great improvement in the appearance of the skin of patients which has been peeled under careful and safe conditions. Whoever does this work, should have had scientific training along these lines.

The selection of perfume is also an important factor in the cosmetic care of the skin. Although perfumes should be used on the clothes, many women apply them to their skin, especially behind the ears and on the lips. Various perfumes contain a certain oil which is especially irritating to the skin. When such a perfume is applied to the skin and that individual exposes herself to the sunlight a peculiar pigmentation limited to the site of application may result. This pigmentation is quite disfiguring, is difficult to remove and persists for a long time. Oil of Bergamot is frequently the causative factor.

In conclusion I wish to emphasize the importance of selecting the proper cosmetics for individual skins. Women with sensitive skins should be especially careful in their selection of cosmetics and should consult properly trained physicians or cosmeticians for advice along these lines.

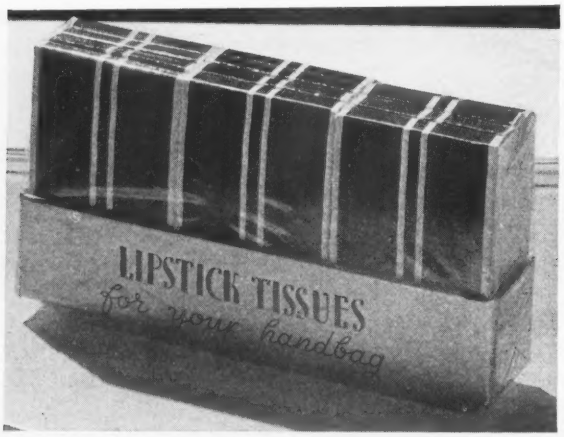


Margaret Brainard has added this unusual combination package to her line. For added convenience the regular powder is combined with the other makeup accessories in one handy package.



New products now available in aluminum are the smart-looking jar and convenient applicators for feminine antiseptic jellies, illustrated above.

Lyon Tissues have packaged twelve packs of lipstick tissues to a box (below). The tissues may be obtained in three coverings, either red, black or green.



The Paris Medicine Co. is introducing a new economy size package of Grove's Bromo-Quinine. The new tin, shown above, contains 40 tablets and retails for 50 cents.

Prince Matchabelli has presented through the Aromel Co. a new atomizer unusual in design and operation. The device (below) is of silver tone and of sufficient weight to prevent upsetting. The turning of a small lever adjusts the amount of perfume sprayed at one time.

● YOUNG MAN, OUR FOUNDER HIMSELF SELECTED THIS PACKAGE

Evidently Mr. Gallump is strong for tradition. Which is all right, too—in moderation.

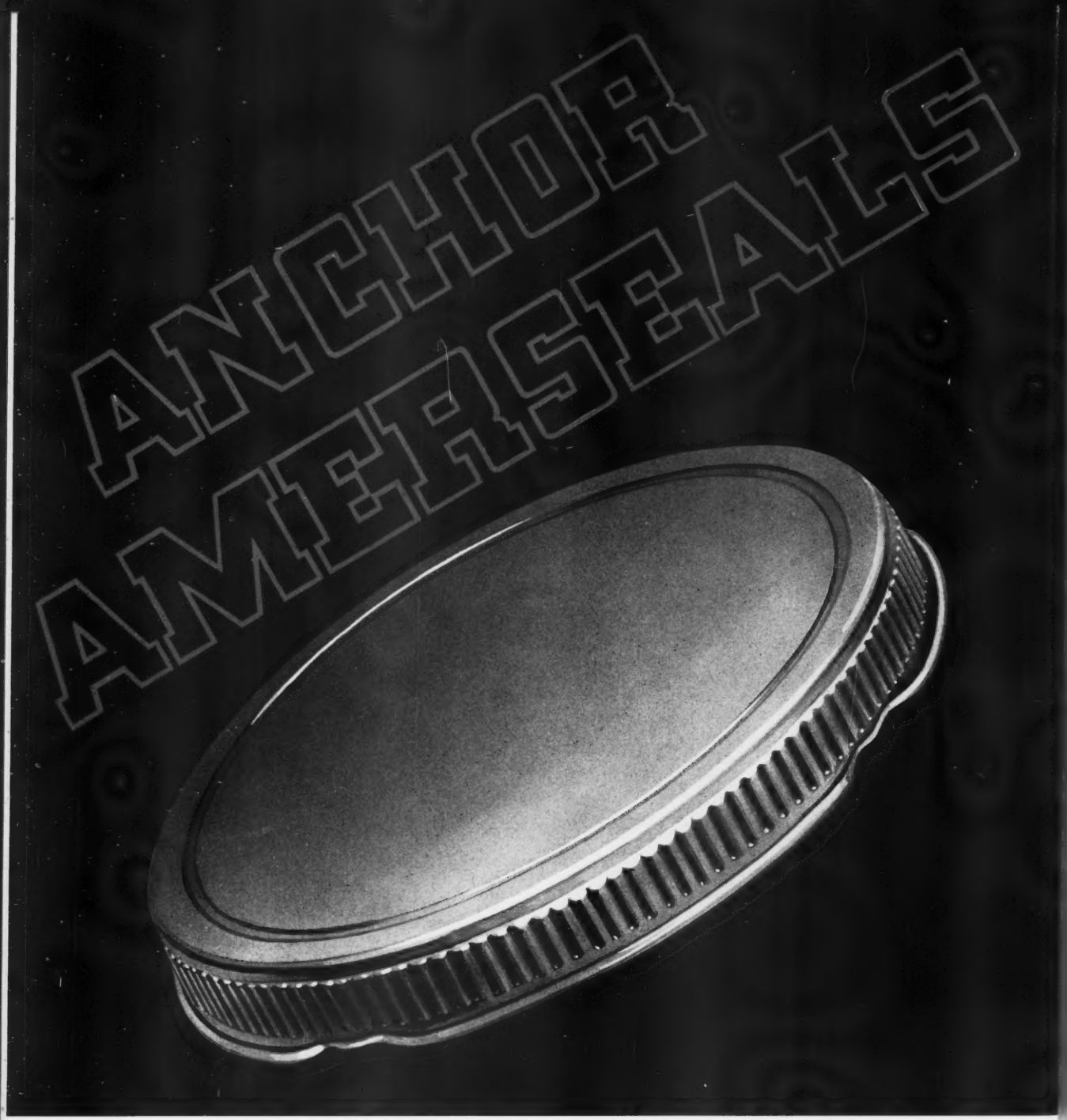
The thing that's wrong with this picture is Mr. Gallump's state of mind. He's got a stand-pat complex. He forgets that when Granduncle Abner founded the business he probably picked the best there was in the way of packages *at the time*. Tradition did not hold Abner back...there wasn't any.

But packages have progressed a lot, Mr. Gallump, since Abner's day...containers, closures, and designs. So don't turn that young man away. Maybe he is about to suggest an improvement for your package that will actually stimulate sales.

Package improvement does not necessarily mean a radical change or an entirely new design. It may be highly desirable to retain the traditional character of the old...yet at the same time improving efficiency or convenience. Anchor will be glad to work with you in studying package effectiveness, in making a thorough-going package or closure appraisal. Then, after careful analysis and consideration and without any obligation, Anchor will submit a specific recommendation fitted to your individual needs.

●

ANCHOR CAP & CLOSURE CORPORATION
Long Island City, N. Y. · · · Toronto, Canada
BRANCHES IN ALL PRINCIPAL CITIES



CONVENIENCE is the keystone of Anchor Amerseal popularity. It is easy to understand, too, why these closures are so convenient, so easy to remove and to replace, when one examines their unique features of design and the way they function. How these results are accomplished is described in detail on the opposite page.

The fact that Anchor Amerseals remove easily and reclose equally as readily—by a simple quarter-turn of the wrist—brings a number of important advantages in its train.

Obviously it is this virtue of convenience that accounts for the unqualified and widespread approval of Anchor Amerseals by the consuming public. To the manufacturer this constitutes a sales advantage that can hardly be over-emphasized.

The reclosing feature makes them ideally adapted to a great variety of products — those that are not intended to be consumed at once, but which are used a portion at a time over a considerable period.

In ease of removal there is no comparison between Anchor Amerseals and the ordinary thread type of cap. Products that would gum, stick or congeal in the threads those that are apt to cake or crystallize an cement such a cap solidly to the containe have no effect on an Anchor Amerseal.

It is easy to break the few points of con tact with a very little effort. Nor is ther the chance for corrosion, freezing the ca to the container through having some o an acid product or brine trapped in th threads—because there are no threads.

They retain their unparalleled conve ience even in the face of products tha seem to offer unsurmountable obstacle

WHY ANCHOR AMERSEALS

SEAL SO TIGHTLY

YET REMOVE SO EASILY

The unique way in which Anchor Amerseal Caps make complete sealing contact around the full circumference of the top of the container accounts for their well known, dependable sealing efficiency. It also accounts for their adaptability to so many varied types of products — confections, cosmetics, food products, pharmaceuticals, proprietary medicines, polishes, and specialties of all kinds.

The principle that distinguishes Anchor Amerseals from all other types of caps is their scientifically designed double-notched lugs. These lugs engage the under side of corresponding threads of the glass container, drawing the cap down tightly and evenly onto the container.

The lugs are formed (not cut) from the rolled edge of the cap, thus eliminating sharp raw edges, and giving them unusual strength to withstand the strain placed upon them when the cap is tightened. The double-notched and slightly pitched construction of the lugs is exclusive with Anchor, and insures a positive, non-slipping grip on the glass threads. These features are the result of years of experimentation and represent the most efficient type of construction yet devised.

In application, as the cap is tightened and the lugs engage with the glass threads, they exert a uniform pressure around the full 360 degrees of the container finish, as shown in the diagram below (left). In addition, the operation of tightening puts the metal under tension, giving it a spring action seal that further assures a tight and constant working pressure.

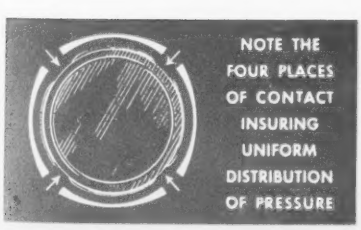
The cap may be started at any point on the container finish, no matching or adjusting of threads being necessary. The liner makes immediate contact with the sealing surface of the container, which with thread types of caps is not effected until the cap has been completely tightened. The application of the cap is simple and easy—only a quarter-turn being necessary to apply or to remove it.

Since contact with the glass threads is made at but two or four points, depending upon the size of the cap—and these on the under side of the glass threads—it is easy to appreciate why Anchor Amerseals are so easy to remove. As there are no threads, the caps will not gum, freeze or cement to the container due to either corrosion or congealing of the product — as is the tendency with thread types of caps.

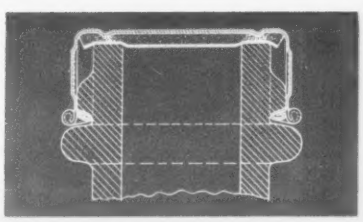
This feature in itself is sufficient to warrant their adoption—especially if the products you pack are sticky, tacky, viscous, or with corrosive properties.

TWO-PIECE STYLE

For those products which require a vacuum, the Anchor Amerseal Cap may be obtained in the two-piece construction. This cap possesses all the conveniences and reseal advantages of the regular Anchor Amerseal, but in addition permits of sterilization. vacuumizing, hot or cold packing.



● This diagram to the right shows an Anchor Amerseal Cap after it has been tightened. Note the firm contact of the cap lug with the glass thread, on its under side. Also note the pressure exerted on the resilient liner where it meets the container top and how it is compressed at that point, making a tight seal and compensating for any irregularities in the glass. The metal top and side walls, too, are under tension helping to hold the cap securely in place and keeping it tightly seated.



CLOSURES

TO MEET EVERY

SEALING NEED

The ideal closure for you is the one completely adapted to your particular product, to the diverse needs and conditions surrounding the production and sale of that product. In some cases sealing is the paramount consideration; with others it may be convenience, or sales appeal, or suitability to the package design, or adaptability to production routine. • Among Anchor's fifteen different types of closures there is undoubtedly one best suited to your individual requirements.

ANCHOR

CAP & CLOSURE CORPORATION

22 QUEENS STREET, LONG ISLAND CITY, N. Y.

CANADIAN FACTORY, TORONTO, ONTARIO

ATLANTA • BOSTON • CHICAGO • CLEVELAND • DETROIT
HOUSTON • LOS ANGELES • LOUISVILLE • MINNEAPOLIS • MONTREAL
NEW YORK • PHILADELPHIA • PITTSBURGH • ROCHESTER
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Titanium Oxide in Cosmetics

Increasing interest is being given both here and abroad to the apparent advantages of the incorporation of titanium oxide in the formulas of many cosmetics.

MUCH information has appeared in various foreign journals regarding the use of titanium dioxide in cosmetics indicating that this product has uses in this industry for which it is particularly well suited, and also indicating a steadily increasing recognition of its merits, and a steadily increasing use of the product in this field. Doubtless there are still further uses in the industry which have not thus far been exploited, but these will be developed as the cosmetic manufacturer becomes more closely associated with the product and its possibilities.

Titanium oxide or dioxide is a product of very high index of refraction and relatively low specific gravity. This combination of physical properties makes for an extremely high hiding or covering power.

The amorphus titanium dioxide forms a pure white, odorless and inoffensive powder. Although much lighter in weight than zinc oxide or white lead, it has covering power superior to both these pigments. Further, it is more opaque, and its character, inert from chemical and physiological viewpoints, often makes its use advantageous. Small amounts of zinc oxide of proper purity give sufficient opacity to these types of powders. Titanium oxide, however, finds a specific use in the manufacture of theatrical make-ups which sometimes require very opaque powders. It will, however be of much greater use in the manufacture of grease-paints, which are composed of three main ingredients:

1. A mixture of fatty materials and wax.
2. A white pigment of more or less opaque powders.
3. Additional pigments.

The white pigment of colored paints is almost always zinc oxide which is said to give good results. When, however, it is a question of white grease-paint, the superior opacity and covering power of titanium oxide is said to be preferred by many makers. White lead is sometimes suggested as a pigment for this use, but due to its toxicity it is not used. Bismuth, in the forms of the oxychloride or the subnitrate, has been suggested, but the use of these compounds besides being costly, offers equal inconveniences. Titanium oxide in these products is said to give the best results when mixed with such white substances as precipitated chalk, kaolin, and talc.

These preparations possess great covering power and great opacity.

The great inertness of titanium oxide is a point of extreme interest to the cosmetic chemist. Its stability toward dilute acids makes it a desirable white covering substance for the manufacture of face powders. How far titanium oxide can replace other substances for medical purposes cannot be predicted at this time. Of the many commercial titanium whites available, only technically pure titanium oxide is suitable for cosmetic purposes. The physical properties of this product are: Specific gravity 3.8; Melting Point 156° C.; Refractive Index 2.76; Insoluble in water, alkalies and dilute acids.

Since the manufacturer of cosmetics often runs amuck of idiosyncrasies of individuals towards ingredients of his products, he must focus his attention upon the selection of those raw materials which are most inert and thus less likely to cause irritation of the skin. In this way he will greatly lessen unfavorable reactions to his products when they are used by very sensitive people. Experiments of Privy Councilors Prof. Dr. K. B. Lehmann and Dr. L. Herget have shown conclusively that titanium oxide is innocuous to the human body.

In considering titanium oxide in comparison with other ingredients of face powders, the higher price of titanium oxide must be weighed against greater covering power. Experimental powder and face cream formulas worked out with the use of titanium oxide have been published by H. Janistyn. Furthermore, titanium oxide may be considered an ingredient of skin creams, lotions, nail polishes, sunburn preparations, foot powders, and depilatories. The possibilities of usage are, therefore, many-sided and indicate new ways of formulating. The following formulas may be taken as models and will doubtless suggest further combinations:

(*Continued on page 39*)

The new automatic lipstick of Helena Rubinstein is effected in red, black and green cases with silver modernistic design. With the new case, a new shade is added, "Red Poppy," a brilliant carmine with no purplish undertone. A new shade of powder, "Peach bloom," has also been developed by Madame Rubinstein. It is packaged in the red boxes with the black and silver motif, characteristic of the line.

Scott & Bowne, makers of "Scott's Emulsion," have yielded to the modern trend for concentrates, with tablets, packaged in tins as shown. Each tablet represents not less than 1200 vitamin A units (U. S. P.) and 600 vitamin D units (A. D. M. A.)

Jack of the Weylin, well-known hair stylist, is now marketing a line of shampoos and wave lotions packaged as shown below.

Thomas Leeming & Co. has adopted a more modern tube for "Baume Bengue." The old and the new tube are shown side by side below. The old tube was plain with a wrap-around paper label, while the new one is attractively lithographed as shown.

The Trend in Essential Oils*

By A. D. Armstrong

ONE year ago this committee expressed its inability to make a definite statement on prospects for 1932 in the essential oil industry. The committee finds itself in the same position at this time.

There are possibilities but no concrete assurance of improvement. The volume of orders continues about the same as during the past two years. Shelves in some industries we serve are nearly bare of raw materials and inventories are low, indicating that a fairly steady demand for day to day consumption can be expected.

Exact figures are not available from all firms but it is the belief that the tonnage distribution of essential oils was about the same as in 1931. The number of orders handled during the year was only a small fraction of one per cent. less than in 1931, although their dollars and cents value totaled considerably less.

Much of the uncertainty confronting the industry is due to the instability of prices at the original source of supply. The importer is expected to carry adequate stocks here to supply the demand, yet, he cannot arrange for these supplies with assurance that he will not have to sell, after arrival of the goods, below the price paid for them. Weeks and occasionally months elapse between the time of placing an order and receipt of the goods from abroad.

On the accompanying list will be found statistics covering the forty-two essential oils responsible for the bulk of the annual tonnage. The statistics show that during the year, thirty-three declined in price, three remained stationary and six advanced.

At the beginning of 1932 it was felt that the price decline in essential oils could not go much further as many items then were selling at, or below, the cost of production. Nevertheless, the decline continued through 1932, although less violently, and the average decline of these forty-two oils amounted to 16.76%. During 1930 it was 24.9% and in 1931, 22.7%. A graph recently completed showing the price curve both of essential oils and aromatic chemicals for the past four years indicates clearly that the replacement cost, particularly of essential oils, has been flattening out. Most of the important price declines occurred in the first half of 1932 since which time the curve has been almost horizontal. Twenty-one of the most important individual oils are now selling at prices far below those of the preceding twenty-three years. The remainder at some time during this period have sold below the price now existing although in no case more than slightly below.

It is unnecessary to consider reasons for the situation confronting the essential oil industry as they are precisely the same as those affecting allied industries. There are too many factors which might interpose to complicate this situation to permit any forecast of the immediate future. However, any improvement of business in general will be reflected in an immediate improvement in the essential oil industry as we are

(*Continued on page 64*)

*Committee Report to Drug & Chemical Section, N.Y. Board of Trade. Read by Mr. Armstrong.

Ever-Dry Laboratories is now presenting the handsome modern package shown at the upper left next to the company's now discarded old package.

The latest company to enter the cod liver oil field is Atlantic Coast Fisheries Corp. with the "Nordic" brand, shown above.

Roger & Gallet have packaged their odors, "Fleurs d'Amour," "Le Jade" and "Feu Follet," in small purse size bottles, shown at the left.

Hall & Ruckel, Inc., has redesigned the "X" cream deodorant package as shown lower left. The color scheme is blue and white.

"**P**erstik" has adopted an interesting mailing carton shown below. It encloses the carton itself which appears at the bottom and opens up giving the advertising and display matter shown.

Perstik
The New DEODORANT
APPLIED LIKE A LIPSTICK
USE Perstik every morning, making sure to cover the entire armpit. During evenings of dancing, parties or theatre, keep Perstik with you to freshen up. You need not take off your dress to apply Perstik.
Perstik is harmless and pure as the food you eat. It cannot irritate the skin or injure fabrics. You may use Perstik after shaving or a depilatory. In fact, it will remove the odor of the depilatory.
If your perspiration is particularly acid in odor, wipe the armpits with a damp cloth before using Perstik in the morning.
A touch or two of Perstik between the toes keeps feet, shoes and stockings odorless. Perstik quickly freshens the hands from the smell of dishwater, onions, fish, paint or cleaning fluid.
Perstik is perfect for use on sanitary napkins. Simply hold the napkin flat with one hand, and with the other hand spread Perstik over the entire area. You never need fear body odor when you use Perstik.
This is the deodorant that has created such a stir
Endorsed by Good Housekeeping Institute
Perstik

Depression Will Correct Distribution

By Carl Fast

IN THE previous article we saw how consumers' prices had steadily grown in spite of the marvelous economies of this machine age in producing goods. How this had been an unnatural growth in the non-productive part of price, buying no product, but merely paying the costs of selling or distributing the products. Finally, how this barrier of false price required such extreme labor-saving economies in producing goods as to cause widespread unemployment, which has cut down the nation's collective buying power, since producing workers are a major part of our consumers. How this interrupted the whole process by a Depression.

The question is, what will be done about it? How will we get back to a normal condition of trade? Will the present Government program bring it back? Will any of the dozen or more widely-discussed "economic stabilization" plans do so? Space forbids our analyzing these plans here and as a matter of fact, we need not do so, because, strangely enough, they all ignore Distribution's wasteful costs as a cause of depression. These plans are chiefly programs for reflation of credit and currency, intended to stimulate industry and relieve unemployment to some degree and for regulation of "balancing" of production, through nation-wide coordinating of industries under Government supervision. These steps may furnish some temporary relief, slightly reducing the number of unemployed, but they can furnish no cure, since they fail to recognize or attack the chief evil or cause of the situation.

The cure will only come by giving production of consumer-goods a larger share of the consumer-dollar; enough to pay producing costs and sufficient profit to finance future production, without eternally inflating prices, thus curbing consumption. We must increase consumption, not curtail production. There can be no other way out, no way back. Any outline of the trade developments which will bring this about must be considered as a prediction rather than a "plan." Without any Socialistic dreams of Government supervision, the manufacturing industries and their agencies of trade or distribution can bring about the changes here outlined. How long this will be postponed no man can say; only a rapidly-spreading spirit of cooperation can quicken the result.

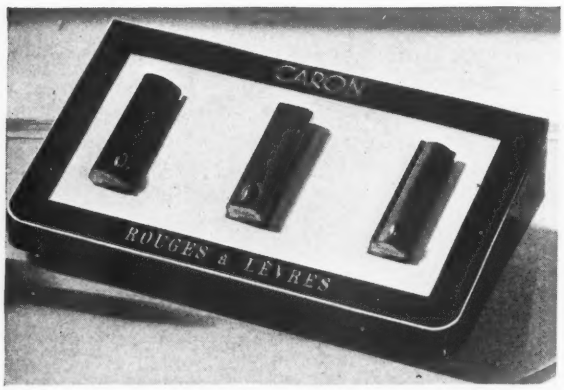
Having seen that the basic cause of our costly distribution lies in having too many retail stores, wholesalers and manufacturers that sell to retailers will set about reducing their number. Authorities agree that if we had half-a-million fewer stores (one-third less than at present) we would greatly increase the total volume of goods sold and consumed, since reduced store-expense and mark-up (price-margin) would give consumers more goods for the same money. This would greatly reduce manufacturers' and wholesalers' selling-costs, by eliminating the present huge percentage of small customers, whose orders are now handled at a loss. Wholesale selling and delivering in one-half dozen, one-third dozen, one-fourth dozen and even one-twelfth dozen lots are the curse of the drugs and toilet goods trade. This is rendering a retailer's service on a narrow wholesaler's mark-up and is suicidal.

First: "Selective selling" will be extended throughout the wholesale world. It is already proving a means of salvation to wholesale dry-goods concerns, and is spreading to other lines. Thousands of small stores are being cut out every month; salesmen of important, efficient houses no longer call upon them. Orders received by mail, if large enough and if the store's credit is O. K. may be filled, but no money will be spent in trying to sell them. When selective selling along these lines has been adopted by even 500 substantial manufacturers and wholesalers in toilet goods and drugs, for example, not less than fifty thousand petty, parasitic dealers will be put out of business, since the "cash-and-carry" jobber can only perform a small part of the wholesale function. Without credit very few stores could open, as they do now, to rashly fill the places of those that fail. One-half of the present retailers in these lines are insolvent and could be put out of business within thirty days, by only a few large distributors. The future objective of sane selling to the trade will be a profitable business, not a valueless volume.

Second: Rules of credit-granting by manufacturers and wholesalers will be made logical. To have a line of credit, a dealer, wholesale or retail, will be compelled to render to the creditor-concerns, at least quarterly, an orderly *operating* statement, something

McKesson & Robbins has introduced two new products which are reproduced in the upper left corner. The first is "Phospho Vitamin B" for nervous disorders, and the other "Vitamin Concentrate Tablets of Cod Liver Oil."

Bonne Bell, Inc. has presented two new creams of the "Virginia Allen" line. These two creams both contain turtle oil, the one a cleansing and the other a nourishing known as "Infiltration" cream. Both are packaged in two-size jars, white with silver and black labels. Black metal tops complete the harmonious ensemble.



Caron has added lipsticks to its line of perfumes. This is a deviation from the usual custom as lipsticks have never before been included. The four shown here are developed in black enamel with white trimmings, gold, gold and white and a novelty one in all gold. The latter is opened by pulling down the base of the stick and raising the stick by means of an automatic lever at the side. The lipstick comes in three shades, two light shades and a dark.

Winthrop has recently added these four new items to its line. Above is an injectable "Luminal" preparation and an active protein substance isolated from the thyroid gland; to the left is another new "Luminal" combination; to the right, a preparation of nucleosides of value in treatment of angina pectoris.

vastly different from the old "financial statement," which is supposed to show the net worth of a debtor-business. Exchange of ledger-information, constant knowledge of the payment-habits of all debtor-businesses, will become universal. Not "can he pay" but "will he pay" will be every credit-man's test of credit-eligibility. This quarterly operating statement, giving sales, purchases, balances on order, expenses, estimated inventory and gross profit and showing speed of stock-turn, is only an assurance of efficient management, of *sound business*, of safe, steady operation, but to require it of all businesses enjoying commercial credit would debar hundreds of thousands of worthless retailers and jobbers from doing business.

Third: Manufacturers and wholesalers will everywhere learn and copy what those of certain sections have already been doing. Realizing that it is bad business for their city to have more stores in any neighborhood than that neighborhood can normally support, there will be wide adoption of the plan for "business birth-control," as it is called in Long Beach, California. There, for several years, under the Board of Trade and the city-planning commission, a research bureau has been maintained which has surveyed all the city's store-locations. If you aim to open a drug-store at Sixth and Vine Streets and apply for a line of credit from a wholesaler or bank, this bureau is first consulted. You are likely to be told that Sixth and Vine Streets now has two good drug stores within four blocks and that to open another there would only make all three lose money, also the wholesalers and the community. But up at Twentieth and Brown Streets there is no drug store within ten blocks. Try to get a store-location there and the credit will be forthcoming. This is only sound chain-store logic in appraising a new store-location, but applied in the interest of the whole community. It must be done everywhere.

Fourth: Through their trade-associations wholesalers and manufacturers will demand and support courses of education in trade-publications, high-schools and through their sales-departments' contact-men, on sound, efficient retailing and merchandising. Not mere salesmanship, but the sound principles and practices of managing a store, of trading in goods. Nation-wide education will be provided, perceiving the truth that merchandizing is the most vital, powerful factor, for good or evil, in our economic life, in the welfare and security of both producer and consumer.

Fifth; By means of the local daily press throughout the land the trade associations of wholesalers and manufacturers of nationally-advertised goods will demand and support a continuous campaign of education of consumers, the newspapers' readers. In this the best local stores and advertisers will join. All consumers will be impelled to patronize only the reputable, worthwhile stores; those that advertise truthfully, price and sell their goods honestly and pay decent wages to their workers. More, every consumer will be impelled to urge other consumers to do so, avoiding and boycotting the stores found to be unsanitary, dishonest, tricky and detrimental to the community. The newspapers of the country are already realizing the need for such a community-housecleaning, for having fewer stores but better stores, consequently more and better advertisers.

Again, these are predictions of what will come, rather than a plan proposed. They are not presented as advisable so much as inevitable. These developments are not fantastic dreams of Communism or Utopian theories of "equality of income," nor attacks upon Capital or the private ownership of wealth. They call for no rebuilding of our form of Government. No such thing will be necessary if Business takes the steps required to preserve its own existence. All these movements will coordinate with the new program in basic industries, in credit expansion, provided the additional credit goes to productive, not parasitic activities.

These developments will only cause Sound Business Methods to become general and collective, instead of exceptional and individual. And the movement toward collectively sound business method is already with us, steadily progressing in business, if not in Government.

Titanium Oxide in Cosmetics

(*Continued from page 33*)

VANISHING CREAMS

100.0 Stearic acid—best white grade.
100.0 Cocoanut Oil.
50.0 16.5% caustic potash solution.
100.0 Glycerine—Puriss.
1000.0 Orange Blossom water.
10 cu. cm. Ambergris solution.
200.0 Titanium Oxide, tech. pure.
10.0 Perfume.

LILY LOTION

10.0 Talcum powder.
10.0 Titanium Oxide, tech. pure.
20.0 Glycerine.
960.0 Rose water.

NAIL POLISH POWDER

500.0 Titanium Oxide, tech. pure.
300.0 Talcum powder.
100.0 Tin Oxide powder.
100.0 Violet root powder, most finely powdered.
Perfume as desired.
Carmine to give a pink coloration.

DEPILATORY

500.0 Barium sulphide.
300.0 Titanium Oxide, tech. pure.
200.0 Wheat starch.

FOOT PERSPIRATION POWDER

250.0 Calcined Alum.
250.0 Boric Acid powder.
250.0 Wheat starch.
125.0 Titanium Oxide tech. pure.
125.0 Talcum powder.
10.0 Oil of Wintergreen, synthetic.

Management Forum

By Francis Chilson
Production Engineer

The Turbine Mixer

We made some interesting experiments with this type of mixer. It was designed primarily as a liquid mixer but its construction is such that it offered itself also as a dry mixer. So we tried it on face powder using synthetic ochre as a coloring medium. In order to compare its efficiency with other types of dry mixers we also hooked up a pebble mill of the same capacity. The pebble mill was loaded with a grinding charge of pebbles—that is about five times the weight of the powder. The color was simply dumped into the powder and both machines started at the same time. Every fifteen minutes we took samples and compared them, continuing for an hour and a half. For the first hour of operation the mixer was far ahead of the pebble mill in its ability to develop color. After that the pebble mill began to catch up and when it had been in operation for an hour and a half the color development was equivalent to that obtained in the mixer after an hour's run. The mixer on the other hand showed no ability to develop the color further after the first hour of operation, that is to say color had reached maximum development after an hour, but it could not do any better after an additional half hour, whereas the pebble mill did better work after it had been in operation for an hour than it did before. Had the pebble mill continued to grind after the one and a half hour period it no doubt would have brought the color out still more strongly. This seems to indicate that the pebble mill is the better device for grinding color, but is by no means as efficient for milling a colored face powder as the mixer, because of the time differential, the ease with which the mixer can be loaded and discharged, and the ease and simplicity of the cleaning operation which must follow each change of colors.

With the colors used the results with the mixer were better after a half hour of mixing than they would have been after three hours in an ordinary spiral type horizontal mixer.

However, we can report now only on the results of a test using one kind of powder and one kind of color and that the easiest to handle of all colors used in face powder. We see no reason why results shouldn't be almost as good using any other kind of color, but that remains to be seen. A mixer can be obtained for trial purposes if you want to make tests on your own powder.

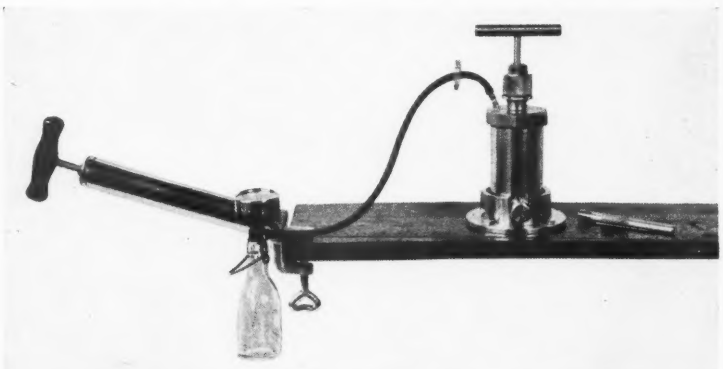
Conveying Powders

This month seems to be prolific in conveying problems. The day after we wrote the above note on the Redler conveyor we were summoned to examine a conveying installation which had proven to be a white elephant. We think the story is worth repeating because it shows how extremely careful one must be in designing a conveying system for any kind of material. The installation in question was designed for handling a dry powder somewhat similar to face powder—but not *quite*. The manufacturer of this powder not knowing anything about conveying systems ordered a well-known equipment house to design and install a complete handling, mixing and filling unit. They did—and how! For some inexplicable reason this company built the same sort of unit that they would build for any kind of dry free flowing materials. But the joker was that this material was by no means free flowing and it was also sticky, but the conveyor company never even asked for a sample of the materials to be handled!

The unit consisted of a feeder, two elevators, a feed hopper and accumulating hopper for finished product. The seven or eight materials comprising the formula—each of an utterly different physical nature: some were free flowing, some arched considerably, some were sticky—were dumped into the feeder and conveyed by means of a screw into the boot of the feed elevator which conveyed them to the supply hopper of the mixer. When the batch was mixed it was discharged into another screw and conveyed to the boot of the discharge elevator. This carried the finished product up into the accumulating bin. Here is what happened:

The formula is very exacting, all of its several ingredients must be present in the finished product in exact proportions and any loss due to sifting or sticking will destroy the finished product. Well, in the first place the feeder clogged and a man had to poke the stuff into the boot of the elevator with a stick. First variable. The stuff stuck to the elevator cups like a mother-in-law and in consequence the elevator did not discharge properly. The cups were neither designed correctly nor made of the right metal. Second variable. The channel of the elevator leaked like a watering pot and the lighter materials sifted out into the room in clouds. Third variable. The supply hopper arched and did not feed properly. Fourth variable. The discharge screw accumulated the errors of the feeder and the second elevator didn't discharge very much better. This, however, was not so serious because only one kind of material was mixed in the unit so that there was no danger of contamination. Finally, the accumulating hoppers packed tightly and would not feed down at all, and a man could poke holes through it with a stick and still it wouldn't come down. Result: A lot of recrimination and a law suit.

This struck us as being an interesting blunder. The several materials of the formula being so variable should have been mixed first before attempting to convey them. The elevator should not have been a bucket elevator and the accumulating hoppers should not have been



View of Goldschmidt's Handy Emulsifier mentioned last month

T.L. BEESWAX

The Standard *of* Quality *for over* EIGHTY YEARS

T. L. White Beeswax

T. L. PURE WHITE BEESWAX, Extra Quality is prepared from the highest and most costly grade of crude beeswax. It is most carefully selected at its source and again, on arrival at the T. L. factory, examined piece by piece. Doubtful pieces are rejected. It is 100% pure and higher than U. S. P. standards.

Throughout the process of bleaching, the original characteristics of the high grade crude beeswax are retained, resulting in a product of extraordinary value to the cream manufacturer. The high melting point and character of T. L. PURE WHITE BEESWAX imparts to the product a very high emulsion value. This property enables the cream manufacturer to use less beeswax in the preparation of the cream and with the assurance that the emulsion is permanent.

T. L. WHITE BEESWAX has been the standard of quality for over *eighty years*. Its constant uniformity gives the best results in making cold cream.

Pioneer Brand Pure Refined Yellow Beeswax

Extra Quality, 100% PURE and higher than U. S. P. Standard. Made from the same high grade crude beeswax as the T. L. Brand, excepting that it is not bleached white. Because of its natural light yellow color it is especially adapted for lemon creams and like preparations.

THEODOR LEONHARD WAX CO. INC.

Haledon, Paterson, N.J.

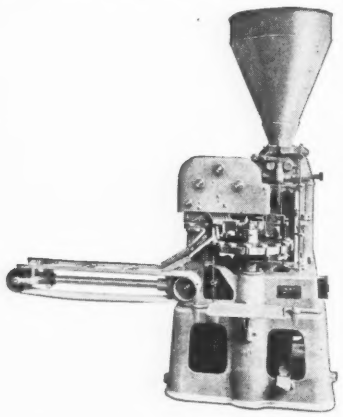
WESTERN DISTRIBUTOR : A.C.DRURY & CO. 106 E. AUSTIN AVE. CHICAGO

pyramidal in shape. It seems to us that a low mixer with an end discharge feeding one elevator connected with conical accumulating hoppers fitted with plows would have done the trick nicely at half the cost. The raw materials could have been dumped directly into the mixer, mixed properly and discharged directly into the boot of the right kind of elevator and conveyed to conical, accumulating hoppers. With the right kind of conveyor the accumulating hoppers might be eliminated and the process made continuous. Production problems as a rule are simple when approached properly, but many people try to solve them without first determining exactly the factors involved.

New Clipless Closure Tube-Filling Machine

A new model full-automatic machine for filling and closing collapsible tubes and sealing them with a new patented clipless closure has just been announced by the F. J. Stokes Machine Company of Philadelphia, Pa. With one operator to feed the tubes to the machine, 45 to 50 tubes per minute can be filled, closed and sealed.

Manufacturers who market their products in tubes will be especially interested in the new Stokes "Diamond Lock" Clip-



less Closure, which, besides being economical, convenient and of fine appearance, is said to be exceptionally leak-resistant. A quadruple tuck-type fold is securely sealed by deep indentations which weave the metal together without the danger of small cracks and pin holes which have a tendency to occur if the impressions cross the edges of the folds.

This 90-D model has the same simple, practical filling mechanism—as well as the other advantageous features of its predecessor, the 90-C. The empty tube is raised automatically around the filling nozzle and is lowered from it as the material rises in the tube. There is a thumb-screw adjustment of fill, which is a great convenience, as any slight variation in the consistency of the product can be compensated for instantly without stopping the machine.

A "no tube—no fill" devise insures a clean machine and tubes and no waste of material. When there is no tube in the filling position, there is no discharge. A neat, tight closure is insured by a preformer which shapes the tube before it is folded.

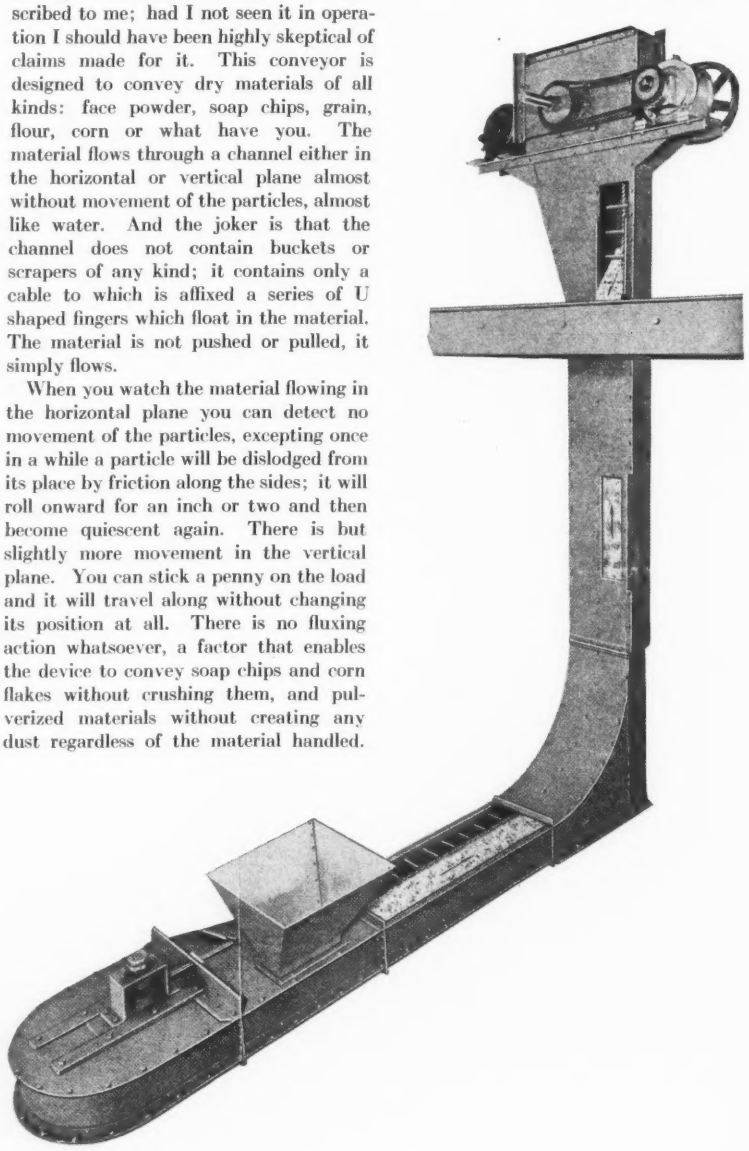
The machine is easy to clean, adjust and "change-over" for different products and tube sizes, making it suitable for either large production on one product or moderate production on a variety of materials."

The Redler Conveyor

Every once in a while a new physical or mechanical law is discovered which is difficult to understand and still more difficult to describe. This is the case in regard to the operation of the Redler conveyor. Had the machine been described to me; had I not seen it in operation I should have been highly skeptical of claims made for it. This conveyor is designed to convey dry materials of all kinds: face powder, soap chips, grain, flour, corn or what have you. The material flows through a channel either in the horizontal or vertical plane almost without movement of the particles, almost like water. And the joker is that the channel does not contain buckets or scrapers of any kind; it contains only a cable to which is affixed a series of U shaped fingers which float in the material. The material is not pushed or pulled, it simply flows.

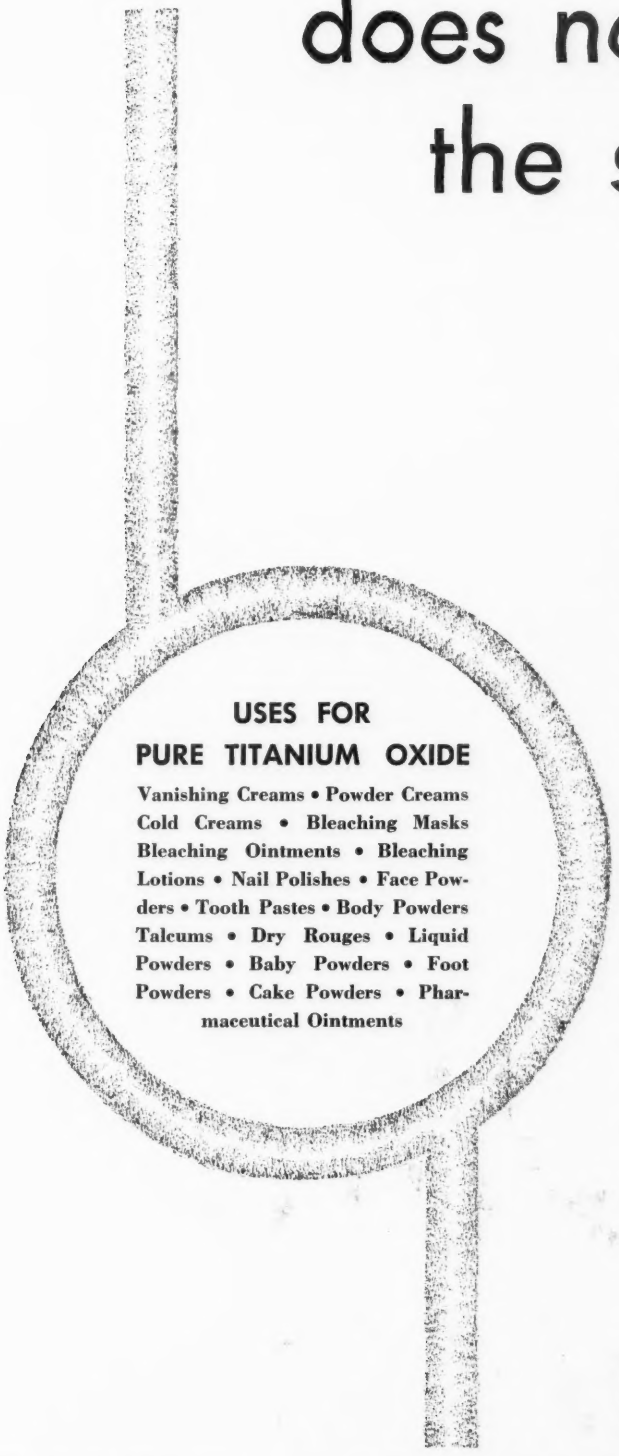
When you watch the material flowing in the horizontal plane you can detect no movement of the particles, excepting once in a while a particle will be dislodged from its place by friction along the sides; it will roll onward for an inch or two and then become quiescent again. There is but slightly more movement in the vertical plane. You can stick a penny on the load and it will travel along without changing its position at all. There is no fluxing action whatsoever, a factor that enables the device to convey soap chips and corn flakes without crushing them, and pulverized materials without creating any dust regardless of the material handled. This same condition obtains regardless of the diameter of the channel. One of the conveyors now installed in a grain elevator has "fingers" about two feet in diameter and yet the smooth untroubled flow of the wheat is the same as in the small vaits. The channel must always be full of material but when it is desired to clean it out thoroughly—as would be the case when used for face powder—pans are laid on the U shaped floaters and the channel can be discharged entirely. Then the unobstructed empty channel can easily be brushed or blown out.

The machine works on what is known as the arching effect of dry materials. All dry materials have this factor regardless of how free flowing they may be and it is definitely measurable for each kind of material. We understand that there is a



Redler Conveyor

This finer, whiter pigment does not irritate the skin...


USES FOR
PURE TITANIUM OXIDE
Vanishing Creams • Powder Creams
Cold Creams • Bleaching Masks
Bleaching Ointments • Bleaching
Lotions • Nail Polishes • Face Pow-
ders • Tooth Pastes • Body Powders
Talcums • Dry Rouges • Liquid
Powders • Baby Powders • Foot
Powders • Cake Powders • Phar-
maceutical Ointments

● Pure Titanium Oxide has received the endorsement of an important group of cosmetic manufacturers who use this modern pigment in the formulation of superior products free from irritating effects. ● Because it is chemically inert, Pure Titanium Oxide will not produce unpleasant effects on the most sensitive skin. It will not react with other ingredients and cause chemical changes, rancidity or deterioration. This pure white pigment also has exceptionally fine particle size and high tinting strength. For this reason, only small amounts are required to produce desirable effects. It is unexcelled in covering power and adhesion. ● Pure Titanium Oxide is manufactured under strict laboratory control to assure a product of highest purity and uniformity. It has a definite place in improving the appearance, texture and color of a long list of products. ● It will pay you to investigate Pure Titanium Oxide and learn how it can improve your products.

TITANIUM PIGMENT CO., INC.

Manufacturers of TITANOX-B (Barium Base)
TITANOX-C (Calcium Base)... PURE TITANIUM OXIDE

111 Broadway, New York, N. Y.; Carondelet Station, St. Louis, Mo.; Pacific Coast Distributor: National Lead Co. of Calif., 2240 24th St., San Francisco, Calif.; Canadian Distributor: Wilson, Paterson, Gifford, Ltd., 101 Murray St., Montreal – 132 St. Helen's Ave., Toronto, Ont.

PURE TITANIUM OXIDE

considerable body of literature on the subject. The units may be obtained in various sizes and are available in either square or round channels. The round ones are recommended for materials like face powder. They are a little different from the square ones, having rings fastened to the cable instead of fingers. These conveyors can be adjusted to available space and they may be bent around a post or turned through a wall into an adjacent room without affecting the uniform flow of the material.

The conveyor was not discovered by an engineer; engineers are too logical to work on such a seemingly impossible principle. It was discovered by a miller who had put traveling chains into his flour bin to keep the material loose and free flowing. Happening to observe that a high wall of flour followed the chain without movement of the particles he realized that he had made an unusual discovery and the Redler Conveyor was the result.

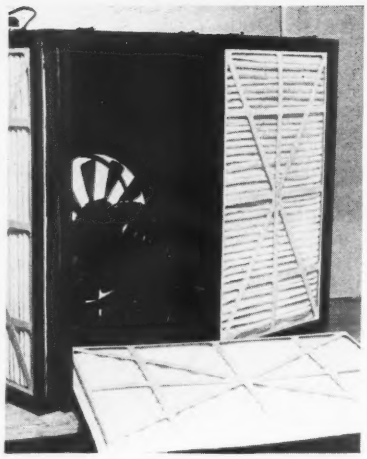
Hand Capper

The capper we described a couple of months ago seems to be going over big. Within two weeks after the article appeared we received a vast number of inquiries about it, most of them coming from the largest firms in all branches of the trade and some of them from abroad. It is gratifying to know that this paper is being read by the important houses of the trade and it is even more gratifying to us personally that this department continues to be of service to the trade.

We have from time to time offered our services to subscribers who are interested in obtaining equipment and supplies and we wish to reiterate that there is no charge for this service. We shall always be glad to co-operate on ordinary problems that do not require extensive research. If you have a problem; if you are in need of equipment of any kind, let's know about it and we'll do all we can to be helpful. Located here in the center of things we are able to keep pretty closely in touch with new developments.

Equipment and Supply Literature

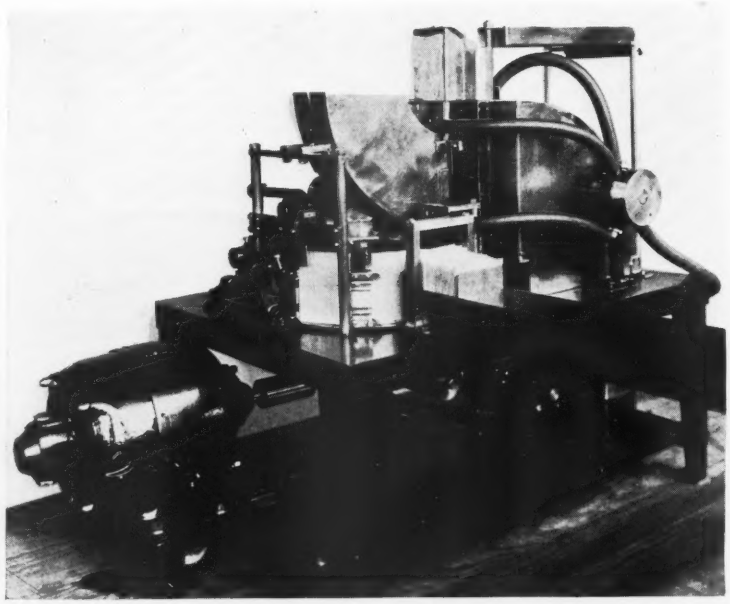
In spite of all the wishes of manufacturers who purchase supplies and equipment of all kinds, literature on these products continues to be sent out in every conceivable and "unfileable" form. In this department, we have voiced the wish that manufacturers of supplies and equipment adapt the standards issued by the Department of Commerce, so that literature can be readily filed and classified. Every chemist, plant manager and purchasing agent who is worth his salt will keep a reference file of this kind, and welcomes literature that can be filed without difficulty. One suspects that all literature not easy to file is promptly deposited in the waste-paper basket. This should be a matter worthy of the attention of manufacturers because, after all, the purpose of mail literature is to get it placed on file. Mr. H. A. K. Whitney, Chief Chemist of University Hospital, University of Michigan, Ann Arbor, emphasizes this, especially with reference to the literature that is sent out by drug and cosmetic manufacturers to retailers. Mr. Whitney calls attention to an article on the subject in the November issue of the "Journal of the American Pharmaceutical Association." While the specifications recommended for a retail druggist would not be suitable for a purchasing agent or a plant manager, the basic problem is the same, and we hope that manufacturers of equipment and supplies will ultimately conform to the specifications of the Department of Commerce.



Another view of Air Filter

A Real Envelope Filler

Here's one that combines the advantages of all of the envelope fillers we've ever seen with none of their disadvantages. It will fill and seal any kind of envelope or bag: transparent cellulose, glassine, paper, etc., with almost any kind of material. It will fill the bags with seeds, powders, powder puffs or packets of gauze and seal them either by heat or with glue depending upon the paper used. Naturally every type of material must have its own feed system. But this can be added to the standard machine. The size of the bag or envelope cannot be changed. This is not so important, however, because the machine is the least expensive of any that we've seen. It is very small and compact and can be placed on an ordinary work bench. Its dimensions are 27″ high, 18″ wide and 44″ long and it weighs only 400 lbs. It operates at a speed of 60 to 100 bags or envelopes per minute depending upon size. It is fully automatic and one operator can watch the supply hopper and pack the filled envelopes. What strikes us as being most unusual is that the feed mechanism opens the bags and deposits the contents simultaneously. The envelopes are fed from a magazine, passed around to the opening and filling station, thence to the sealing station and from there to the delivery chute. None of the machines are carried in stock; each is built to order for your bag or envelope as the case may be. By purchasing additional accessories the same machine can for example be used for filling face powder samples and also for putting puffs into envelopes.



New Envelope Filling Machine

Sometime ago we said in an advertisement:

"We know more about the kind of odors the public will buy than most other people do."

Don't take our word for it; prove it.

The public will buy an odor like our JALMA. It comes in several grades from $12.00 per pound up.

Lilas Véritable—for the new season, a new odor along the lines of the lilac blossom itself. Sweet and lasting—more so than you generally expect in a lilac. For perfume, No. K-19, $20.00 per lb.; for powder, No. K-20, $12.00. Lilas Véritable No. K-21, $10.00 per lb. for creams.

Send for a sample and see for yourself

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Manufacturers and Importers of

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Flavor Materials, Aromatic Chemicals
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The Compounders' Corner

Liquid Shampoos

One difficulty encountered in liquid shampoos, is flocculation or clouding. These products must be made in sufficient concentration to cleanse hair and scalp properly, and the higher the concentration, naturally the more danger of soap depositing. Such shampoo is of course spoiled, but not irretreviably so before it is bottled in plant. If clouding or flocculation takes place in tank, then it is easy matter to remove flakes with sulfonated castor oil. Since addition of perfume to liquid soap may sometimes cause flocculation of part of dissolved soap, it is wise to mix perfume composition with sulfonated castor oil before it is added to soap. Under any conditions it is best to add mixture of perfume and sulfonated castor oil slowly. Since castor oil can be sulfonated to different degrees of sulfur content, it is advisable to exercise care in buying this product, and only one that is recommended by makers for this special purpose should be used.

Creams for Crowsfeet and Wrinkles

Crowsfeet or wrinkles or lines around eyes are caused by loss of oil from skin and its drying up. In other words there is deficiency of fat under skin. Massaging with special cream will aid skin in regaining its natural condition. Cream is of lanolin type and must be combined massage cream and skin food, liquefying under pressure of fingers. Ordinary creams cannot be used; they clog and pull too much. Suitable cream contains 100 parts of cocoa butter, 220 parts of anhydrous lanolin, 80 parts of sweet almond oil; all are melted and 220 parts of triple strength rose water are added and mass is worked into cream. In use cream should be left on over night. Suitable astringent lotion for treating skin after removal of cream contains 60 parts pure alum, 60 parts tannic acid, 480 parts glycerin and 400 parts triple strength rose water.

New in Medicinal Cosmetics

Tests on titanium dioxide for cosmetic purposes showed that it is only slightly irritating to skin as compared with zinc oxide, bismuth subnitrate, talc, bole and lycopodium. Part of skin was covered with these substances for weeks, and many were found irritating; lycopodium was only slightly irritating. Covering power of these substances vary. Most favorable is titanium dioxide and least are zinc oxide and bismuth subnitrate.

Eosin in lipsticks has been considered absolutely safe, but certain clinical observations have proven that there are some people sensitive to it. Compounder should not use any higher concentration of eosin in lipstick than is absolutely necessary to give proper color. Many people will not be affected by low concentration of dye in lipstick but will feel effects of higher concentration.

How hair grows has not yet been settled as regards part played by keratin, cystin, or cholesterin. Effective hair preparation must be compounded to contain necessary hair food before it will grow hair. Nutrition deficiency and troubles play important roles and hair oil can only supplement proper nutrition. Until more definite knowledge is available, compounder of hair preparations can scarcely be expected to produce really effective, hair-growth-stimulating compositions.

Experiments show that hydrogen peroxide bleaches any black hair through red, blond and finally white. Oxidation is very rapid in alkaline solution, slow in neutral and acid solution and is retarded by potassium cyanide. Oxidizing ferment is contained in hair. Artificially bleached hair has same constitution as natural hair. Assumption is that black hair will be formed from aromatic amino acids under action of ferment with slight, acid oxidation; blond hair with stronger oxidation and alkaline reaction and red hair with neutral reaction. Hormones enter into reaction. Proper understanding of natural coloring of hair must lead to better cosmetics for bleaching, or in coloring black. Further development along these lines will be reported.

An example of new type of depilatory calls for 46% strontium sulfide, 18% chalk, 23% starch, 12% albumen and 1% perfume. This product is powder. Albumen protects skin from injury by active sulfide, by forming membrane over skin resisting penetration of chemical while not impeding action of same on hair. Soap cannot be used because insoluble soaps will be formed with metals of sulfides.

Addition of sulfocyanides to depilatorics aids effectiveness. Iodides, bromides and nitrates possess similar action. They promote swelling action of depilatory on hair and by shortening time of this phenomenon they materially accelerate action. Proportion of salts in mixture controls, but no more than 10% of entire mixture should be added. For example depilatory may contain 42% strontium sulfide, 17% chalk, 20% starch, 10% albumen, 10% potassium sulfocyanide and 1% perfume.

Sodium Sulfite for Permanent Wave

Drying hair after treatment forms an important step. Particularly in case of white hair, removal of last traces of water at about 212° F. is liable to cause discoloration. Furthermore, operation of giving permanent wave to hair involves subjecting it to influences which tend to oxidize it. Hair thus becomes brittle. All these difficulties may be overcome by adding reducing agent to permanent wave washes. Best for this purpose is sodium sulfite. It effectively prevents oxidation of hair, both hair substance and the pigment, and discoloration of white hair during drying.

Bleaching Skin Creams

Creams giving forth oxygen are difficult to keep. Active ingredient gradually disappears and bleaching action is impaired. Sometimes waxes are added but this does not help much. Suggested product of more than ordinary effectiveness and lasting qualities is made like cold cream and contains 8 parts spermaceti, 8 parts bleached beeswax, 56 parts mixture of almond oil, peach-kernel oil, and like, these ingredients being emulsified with 28 parts rose water. Ten parts sodium perborate are worked into cream and 1% methyl parahydroxybenzoate is added to stabilize it. Latter can be dissolved in rose water. Use of various emulsifiers is also claimed to aid in preventing decomposition of perborate and loss of oxygen.

Binder for Compact Powder

Trouble often occurs due to use of wrong binder or wrong proportions. If trouble is had with too soft cakes, addition of little gum tragacanth slime, approximately 0.1 gram per liter of water, will overcome difficulty. Too much gum tragacanth should be avoided, as this makes compact too hard and it does not rub off properly. Rice starch is not suitable for use in making these compacts, but if used, only small quantities must be added.

Sulfur for Hair Tonics

Sulfur has been used largely in hair tonics, hair pomades to prevent dandruff and loss of hair. Difficulty is that sulfur dissolves easily in organic solvents of type not usable in hair tonics. For example carbon disulfide is good solvent but hardly practical for hair preparations. Unless sulfur is dissolved it cannot penetrate skin and effect its therapeutic action. One suggestion is to make solution of sulfur in alcohol and then precipitate colloidal sulfur by addition of water, using entire mass to compound tonic or like. Colloidal sulfur is certainly preferable to pulverized sulfur merely mixed with salve base or tonic. Note that alcohol dissolves only maximum of 1% sulfur. On other hand carbolic acid, that is phenol, dissolves about 16% sulfur. This suggests good

During 1933

A saving in inventory can be effected by the adoption of a popular priced odor for your complete line. Your products will be identified with a single distinctive odor and a large and expensive inventory will be avoided. We recommend the following odor complexes for all types of cosmetic creations:

Jardin de Juin	a delightful, flowery fragrance of the "blonde type."
Rose Flower A	a lasting odor closely resembling the flower.
Bouquet S 702	the essence of sophistication, powerful and lasting.
Orchidee Imported New	distinctive with a hint of the Oriental.

Your inquiries will receive our best attention!

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sulfur hair tonic by mixing carbolic acid with alcohol and adding castor oil or peanut oil in proper proportions. Another idea is to use soluble sulfur compounds. Thus triphenyl-stilbine-sulfide is soluble in oils and effective preparation is obtained.

Greasy Hair Powder

New idea is hair wash in powder form containing oil. Only small amount of fat, particularly if it is a glyceride, can be added without powder becoming too greasy and losing physical state. Powders containing fat wil leasily become rancid. Mineral oils and greases do not decompose, but form smeary film and are scarcely suitable for making powders. Suggested is use of olive oil or mineral oil in approximately 1% of weight of powder, log being first dissolved in little ether and solution mixed with portion of powder, and this mixture finally intimately triturated with rest of powder. Final product is passed through a fine meshed screen.

Corn Removing Preparations

Most preparations recommended for removing corn and other calloused skin contain sodium hydroxide or potassium hydroxide. Concentration be more than 5%; otherwise products must be labelled poisonous. Two to three per cent. is sufficient. Glycerin preparation contains 15 parts potassium hydroxide, 200 parts 28° glycerin and 285 parts distilled water. Salicylic acid is often an ingredient. It is effective but irritating to skin. Addition of borax counteracts this action. Thus 40 grams borax are dissolved in 100 grams hot water and 20 grams salicylic acid are added. Salicylic acid may also be incorporated in paraffin salve in proportions as high as 33 to 50%. Perborates are good corn removers. Preparation contains 120 parts sodium perborate, 70 parts boric acid powder, 50 parts borax and 250 parts sodium bicarbonate. Lactic acid may be used in corn removers. Triethanolamine gives well-emulsified preparations. Presence of triethanolamine in corn remover aids in softening skin so that active ingredient can do its work with greatest efficiency. An example is 50 parts stearin, 10 parts triethanolamine, 300 parts water. Quince slime or starch paste are used to obtain thick, colorless, odorless liquid by admixture with potassium hydroxide. Starch tablets are made containing 40 to 50 parts salicylic acid and 60 to 50 parts starch. Another effective preparation contains 10 parts betanaphthol ether, potash soap and white petrolatum to make 25 parts, and 40 parts of precipitated sulfur.

Lecithin in Creams

Lecithin incorporation in vanishing creams affords certain difficulties. Simplest is to dissolve lecithin in molten stearic acid, avoiding carefully any overheating. Then entire mass is poured into alkaline solution while being actively stirred. When oil can be added to vanishing cream, lecithin is first mixed with warm mineral oil (one part lecithin to half to one part mineral oil). After cream is compounded, warm lecithin mixture is mixed with still warm cream. Entire mass is allowed to cool while being agitated constantly. No trouble is encountered when working in this manner.

Lecithin may be added to finished cream by first making concentrated solution of former in warm alcohol. Temperature must not be higher than 60° C. and heating must not be conducted over open flame. Alcohol content of cream can safely be as high as 3%.

Depilatories on New Basis

All sulfide depilatories have one disadvantage in common. They are applied as paste which dries out hard on skin, resulting in great reduction of depilatory power, prolonged duration of treatment and considerable difficulty in removal from skin which is often injured. New base is proposed for these preparations which are thus obtained as creams possessing lathering quality. Thus sulfides are mixed with albumens and nucleoalbumens, such as casein, or their soluble, salt-like alkali and alkaline earth compounds and high molecular weight decomposition products. Striking property of these albumens is that they go into solution in water comparatively easy at room temperature.

Cetyl Alcohol in Cosmetics

Cetyl alcohol is made from spermaceti or synthetically from stearin by new process. It has certain excellent properties for hygienic cosmetics. Its cost in pure form is high, but good technical grade is available now. It is waxy substance, pure white and slightly odorous. It melts at 35° to 45° C. It has no taste; is insoluble in water, soluble in alcohol, chloroform, benzene, etc. It does not become rancid and does not irritate skin. It makes skin very soft and smooth and easily penetrates it.

It is very easy to compound, dissolving in hot fats and oils, giving product resembling waxes or petrolatum depending on amount of cetyl alcohol used. It is used as base in this compounded form for salves, pomades, etc. Its high water-absorbing properties make it highly useful for hygienic cosmetics. Forty parts cetyl alcohol mixed with 115 parts paraffin, 240 parts anhydrous lanolin, and 175 parts mineral oil gives base suitable for variety of purposes. First paraffin and anhydrous lanolin are melted together and mineral oil added to melt while agitated. Finally cetyl alcohol is thoroughly mixed with melt, forming smooth homogeneous product.

When used for salves and like, hot water of 70° C. is mixed with base to desired consistency. Homogeneous cream is obtained. Softness desired in finished product depends on amount of water added. Thus if 400 parts of water are added to above base, then cream has consistency of highly viscose, pure white lanolin salve. If 600 parts are used, Preparation is like cold cream of salve consistency. Equal parts of salve base and water give white homogeneous emulsion and white cream is obtained by adding three parts mineral oil. Cream may be used as base for cosmetic, such as boric acid lanolin salves, baby creams, creams for protecting skin against sunburn, etc.

Both penetrating and water-absorbing properties of cetyl alcohol are important. Active ingredients, such as boric acid, aesculin, quinine salts, such as the hydrochloride, sulfate, etc., are readily absorbed into skin, and their action is quicker and more potent than in usual, compounded creams. Base may be used in cooling salves. Evaporation of water contained in cream produces cooling action on skin. Alcoholic solutions of salicylic acid, tannic acid and like are easily incorporated with cetyl alcohol. The base, containing large proportion of lanolin, can be readily used for compounding with beeswax, spermaceti, ceresin wax, etc.

Another example of cetyl alcohol base contains 200 parts paraffin, 50 parts anhydrous lanolin, 650 parts odorless white oil and 120 parts alcohol. Base can absorb 250% water. Lime water or lead water may be substituted for pure water in making improved cooling salves. Insoluble substances, such as zinc oxide, can be incorporated with salve base. Mineral fillers or pigments are sometimes used, although they penetrate skin badly. On other hand these pigments are stable and non-irritating. Presence of cetyl alcohol has been found to materially increase penetrability of even these substances. Such mixtures are well suited for cosmetics and pharmaceuticals.

First salve base may be mixed with 3.5 times its weight of mineral oil at 70° C. to give thick, creamy mass. This emulsion is stable and may be mixed with suitable ingredients, such as quinine sulfate, to give anti-sunburn preparations, massage oils and like. Base easily absorbs camphor and menthol. Addition of 1880 parts mineral oil to 400 parts of same salve base gives white, uniform, stable emulsion of consistency of thick shaving lather. Such preparation will remain pourable in coldest weather. It can be used in making liquid, non-greasy preparations, containing potash soap with 0.5% excess stearin.

All cetyl alcohol bases are easily perfumed. About ½% oil of bergamot, lavender oil, is added. Mineral oil can be replaced by vegetable oils, such as peanut oil, olive oil, almond oil, etc. When these vegetable oils are used, preservative must be added to base. This may be benzoic acid, sodium benzoate, methyl parahydroxy benzoate and like.

News

Associations

McDonough Heads Drug Section

Drug and chemical section, New York Board of Trade, has elected the following officers for 1933: chairman, F. J. McDonough, N. Y. Quinine & Chemical Works; vice-chairman, S. W. Fraser, Burroughs Wellcome & Co.; treasurer, S. B. Penick, S. B. Penick & Co.; secretary, Ray C. Schlotterer. Members of the executive committee are Herman G. Weicker, Dodge & Olcott Co.; A. Bakst, Bakst Bros.; Gustave Bayer, Merck & Co., Inc.; C. L. Speiden, Innis, Speiden & Co.; A. A. Teeter, Chas. Pfizer & Co.; Victor E. Williams, Monsanto Chemical Works. Representative of the section as director in the board is Charles A. Prickitt, Upjohn Co..

These officers were elected at the annual meeting held January 12, at the Drug Club, New York. The order of business

Frank J. McDonough

preceding these elections was as follows: Report of the chairman, Percy C. Magnus, Magnus, Mabee & Reynard; report of executive committee, S. W. Fraser, Burroughs, Wellcome & Co.; report of representative of section in general board, Charles A. Prickitt, Upjohn Co.; report of membership committee, J. J. Reiner, Lehn & Fink Products Co.; report of legislative committee, Dr. Henry C. Lovis, Seabury & Johnson; report of committee of manufacturing chemists, A. A. Wasserscheid, Mallinckrodt Chemical Works; report of committee of manufacturing pharmacists, Elmer H. Hessler, G. S. Stoddard & Co.; report of committee of wholesale druggists, Jean E. Speckel, McKesson-New York Drug Co.; report of committee on essential oils, Frederick Watermeyer, Fritzsche Brothers; report of Committee on insecticides and disinfectants, John Powell, John Powell & Co.

St. Louis Assn. Elects

Drug and Chemical Association of St. Louis has elected the following officers: president, R. T. Dunn; vice-president, Paul E. Gilman; second vice-president, Charles E. Schall; secretary, Charles L. Rogers; treasurer, H. J. Thomsen.

A. Ph. A. Elects

American Pharmaceutical Association has elected the following officers who will be installed at the 1933 annual meeting at Madison, Wisc., August 28 to September 2: president, Robert L. Swain; first vice-president, Robert P. Fischelis; second vice-president, John C. Krantz, jr.

Reserve March 16

March 16 will be the big day in the drug trade in New York. For on that evening the Drug Trade Dinner will be held under the auspices of the Drug & Chemical Section of the New York Board of Trade, at the Waldorf-Astoria Hotel. Over 750 men of the trade attended this dinner last year. Frank J. McDonough, Chairman of the Section expects that not less than 1,000 will attend this year. Major executives from leading drug and cosmetic houses will be in attendance, as well as major executives from chemical and supply houses to the drug and cosmetic industry. The dinner is no longer confined to New Yorkers, but now presents a national aspect in its attendance. You can not afford to miss it. The price is $6.00 per person. Send your reservations to THE DRUG AND COSMETIC INDUSTRY, or to R. C. Schlotterer, Secretary, Drug and Chemical Section, New York Board of Trade, 41 Park Row, New York.

Lum Heads Chicago Association

Chicago Perfumery, Soap & Extract Assn. has elected the following officers for 1933: president, Dudley F. Lum, Givaudan-Delawanna, Inc.; vice-president, Walter H. Jelly; secretary and treasurer, W. Kedzie Teller.

Weicker Heads Dealers

H. G. Weicker, Dodge & Olcott Co., New York, has been elected president, and Dr. E. C. Kunz, Givaudan-Delawanna, Inc., New York, has been elected vice-president, of the Essential Oil Dealers' Association.

Alcohol Association Formed

Alcohol Products Manufacturers' Association has been formed in New York for the purpose of improving trade practices. Members include Allied Drug & Chemical Co.; Bakst Brothers; Block & Co.; Bornn Distilling Co.; E. T. Browne Drug Co.; Floral Products; Gibson-Howell Co.; D. Kaltman & Co.; W. H. Loveland; Libit Laboratories, Inc.; McKesson & Robbins; Northern Drug Co.; Norwich Pharmacal Co.; Ormont Drug & Chemical Co.; Rector Pharmacal Co.; Reo Chemical Co.; Ritz Perfume Co.; Royal Mfg. Co.; United Chemical Co.; W. & H. Walker.

Applications and information may be secured from the following officers: President, David Kaltman, D. Kaltman & Co., Jersey City, N. J.; vice-president, Dudley Schartzman, Floral Products Co., New York; secretary, Gertrude Jaffe, Libit Laboratories, Inc., New York.

Willats Heads Cal. Cosmetics

California Cosmetic Association has elected the following officers for 1933: president, H. P. Willats, Colonial Dames, Ltd.; vice-president Capt. Clyde Balsley, Catherine MacDonald Co.; secretary, M. Goldman, Sales Builders, Inc.; and treasurer, M. Wilkinson, Ex Cel sis Co.

The first meeting of the year was held January 11. It was reported that the

H. P. Willats

association's committee had secured temporary suspension of the literal interpretation of existing laws which would directly affect sales through department store, drug stores and direct to homes, all through demonstrators.

Formal protest has also been lodged by the association against proposed legislation to place a state tax of 10 per cent. on cosmetics. A similar measure on the ballot in the November elections was defeated, largely through the efforts of this association.

The association is now working towards the elimination of the mis-use and misapplication of the word "Hollywood" in connection with cosmetics, and towards raising the standards within the industry by an educational campaign to do away with adverse criticism of products in the field.

Gartlan Heads Foragers

Joseph V. Gartlan, sales manager, Pinaud, Inc., New York, has been elected president of the Foragers for 1933. Other officers are Harry D. Folsom, vice-president; and O. C. Niedenstein, secretary. The annual dinner of the organization was held January 7.

Pickett Quits United Medicine

James F. Pickett has resigned as secretary of the U. M. M. A. after serving the United Medicine Manufacturers of America since its organization in 1921, four years as president and eight years as secretary. He will again engage in active commercial business. In his service to the U. M. M. A., he has promoted a great deal of work which has been of benefit to the industry as a whole.

Miss Helen Williams of Washington, D. C. has been appointed Assistant Secretary to take care of the office in the Transportation Building at Washington. She is very capable and thoroughly understands the prepared medicine industry from connections she has had in the past twelve years.

The officers and the board of managers of the U. M. M. A. are as follows: president, J. M. Ewing, Toma Inc., Ligonier, Pa.; eastern vice-president, J. B. Van Dyke, Van Dyke Chemical Co., Philadelphia, Pa.; central vice-president, I. R. Blackburn, Blackburn Products Co., Dayton, O.; southern vice-president, W. W. Burgess, Knox Co., Kansas City, Mo.; treasurer, Wm. Holloway, Johnston, Holloway & Co., Phila.; assistant secretary, Miss Helen Williams, Washington, D. C.

Board of Managers: Bernard Groblewski, Albert G. Groblewski & Co., Plymouth, Pa.; H. E. Woodward, Woodward Products, Binghamton, N. Y.; F. C. Arner, The Arner Co., Buffalo, N. Y.; E. L. Maines, Smith, Kline & French Laboratories, Phila.; K. D. Muir, Muir Laboratories, Grand Rapids, Mich.; J. P. Nickodemus, Flaxo Co., Saginaw, Mich.; W. C. Kalash, Master Laboratories, Omaha, Neb.; Paul J. Mandabach, National Drug Clerk, Chicago; Consulting Counsel, Clinton Robb, Washington, D. C.

Deupree Reelected

R. R. Deupree, president, Procter & Gamble Co., was re-elected president of the Association of American Soap and Glycerine Producers at the annual meeting of the association.

Other officers elected include: Charles S. Pearce, chairman of the board, Colgate-Palmolive-Peet Co., vice-president; Dr. J. S. Goldbaum, Fels & Co., secretary and treasurer; and Nils S. Dahl, John T. Stanley Co., assistant treasurer.

Directors also elected at the annual meeting include: F. A. Countway, Lever Bros. Co.; George A. Eastwood, Armour & Co.; R. M. Johnson, Swift & Co.; and F. H. Merrill, Los Angeles Soap Co.

Rosenberger Heads Phila. Chem. Club

J. M. Rosenberger of Smith Kline & French, Inc., has been elected president of the Chemical Club of Philadelphia.

People

George Merck on Business

George W. Merck, president of Merck & Co. Inc., in commenting on the prospects of this industry for 1933 stated:

"A mild epidemic of influenza during December resulted in a slight increase in the sale of chemicals used in combating this particular disease. Naturally the question of whether this increase in sales will continue during the first few months of 1933 is a matter of conjecture. Looked at from almost every angle, the bulge cannot be considered other than temporary.

"During the year 1932 the industry suffered severely in dollar volume reduction, but fortunately this decrease was not as severe as in most industries. Up to the present time there have been no definite indications that the year 1933 will show an upturn in volume. The period of depression has been accompanied by a betterment in the physical well-being of the country, which in turn has resulted in fewer calls for medicinal chemicals.

"Most manufacturers in the industry, rather than count on increased volume during 1933 on their present products, are bending every effort in developing through research new products and new uses for their present products."

Rapin Heads Chiris

Louis Rapin has been elected president and treasurer, Antoine Chiris Co., New York, succeeding Charles A. Swan, resigned. Mr. Rapin has been connected with the Chiris organization for thirty years and since 1924 has acted as liaison

Louis Rapin

officer between the French and American companies, making his headquarters in New York, but spending a portion of each year abroad at the company's plant in Grasse.

William W. DeFrees, since 1925 in charge of the Chicago office of the company, has been chosen vice-president, and George H. Mann, who has been New York office manager, has been appointed assistant manager.

Van Horson Heads Dorothy Gray

John M. Van Horson, formerly director of the Modess division of Johnson & Johnson, New Brunswick, N. J., has been appointed general manager of Dorothy Gray, Inc., New York. He had been with Johnson & Johnson since 1927 in complete charge of organizing the sales policies and marketing program of "Modess." Before his connection with that company he was engaged in sales promotion work on "Flit" and "Nujol" for Stanco, Inc., New York.

Johnson & Johnson Promotes

T. E. Hicks, formerly vice-president in charge of field forces, Johnson & Johnson, New Brunswick, N. J., has been made vice-president in charge of merchandising. Arthur B. Hill, formerly with the Chicago office, succeeds Mr. Hicks as manager of salesmen. A. R. Clapham continues as vice-president and general sales manager. W. C. Martens, formerly New York representative, has been appointed director of the Modess division.

McCormick—Partner in H. J. Baker

Harold S. McCormick, who for twenty-two years has been associated with H. J. Baker & Bro., importer and dealer, New York, was admitted to partnership in that organization, January 1. Other partners are James K. Welsh, H. V. B. Smith, E. A. Buck and C. D. Rafferty.

Hayes—Sales V. P. of Nyal

Ralph E. Hayes, formerly sales manager in charge of central and western divisions for Frederick Stearns & Co., Detroit, has been appointed vice-president and general sales executive of the Nyal Co., that city. Previous to his association with the Stearns organization he was with the Lambert Pharmacal Co. and E. R. Squibb & Sons for many years.

Coty, Inc. Appoints Officials

Coty, Inc., New York, has announced the following new appointments in the sales department. Harold J. Egan has been appointed assistant to the sales manager, Jean Despres. John Bacher has been appointed manager of the Middle West territory, operating from the Chicago office. Jean Millon and B. I. Bloom have also been added to the executive sales staff.

Mullin on Tour

B. Mullin, general sales manager, Nusheen Co., has left on a nationwide tour during which he will call upon all of the company's distributors.

Joseph Triner Appointed

Joseph Triner, president, Joseph Triner Co., makers of "Triner's Bitter Wine," has been appointed chairman of the Illinois Athletic Commission.

Exchange BRAND

CITRIC ACID U. S. P.

CRYSTALS · GRANULAR · POWDERED
MADE FROM AMERICAN LEMONS

Exchange Brand Citric Acid U. S. P. is made from American Lemons by the Exchange Lemon Products Company of Corona, California. It is backed by the Sunkist group of 13,200 California Citrus growers, the largest in the world. Immediate shipments are made from warehouse stocks in New York, Chicago, Philadelphia and St. Louis. Consult any of our distributors for prices on kegs, barrels or carloads.

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Mallinckrodt CHEMICAL WORKS
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DODGE & OLCOTT COMPANY,
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NEW YORK QUININE & CHEMICAL WORKS
101 North 11th Street
Brooklyn, New York

PACIFIC COAST SERVED BY

Products Department - CALIFORNIA FRUIT GROWERS EXCHANGE, Ontario, California

Swan Resigns from Chiris

Charles A. Swan has announced his resignation as president, treasurer and director of Antoine Chiris Co., New York. He had been associated with the company

Charles A. Swan

since 1898. He was general manager of the Delawanna, N. J., works from 1914 to 1924, at which time he became vice-president and general manager of the company. He had been president and general manager since 1927.

Hans Daniel Visits Here

Hans E. Daniel of Meht & Daniel, Hamburg, Germany, arrived in this country on the S. S. "Hamburg," January 7, after a stormy voyage. He is making his annual visit to the New York office which is in charge of R. D. Heins.

King—de Markoff Representative

Frank D. King has been appointed Pacific Coast representative for Alexandra de Markoff with headquarters in San Francisco. His brother, Ralph M., continues to be the de Markoff representative for the Eastern territory.

Huff—P. & G. Sales Manager

Clarence J. Huff, for several years manager of the case goods division, Proctor & Gamble Co., Cincinnati, has been appointed general sales manager, succeeding the late Stockton Buzby.

D. Ushkow Returns from Abroad

David Ushkow, president, Intravenous Products Co., New York, arrived in New York, January 12, on the S. S. "Champlain," after a two-months trip through Europe.

E. J. O'Connor—President Beatrice Mabie

E. J. O'Connor, formerly with Neet, Inc., and since 1931 with Beatrice Mabie, Inc., St. Louis, has become president of the latter organization.

Roblin Davis Reappointed in Bank

Roblin H. Davis, president of the Davis Brothers Drug Co., Denver, wholesalers, has been reappointed a director of the Federal Reserve Bank of Kansas City.

Thomas LaPrelle—D'Orsay Sales Mgr.

Thomas LaPrelle, formerly sales manager of the wholesale division of R. Louis, Inc., New York, has been appointed sales manager of the D'Orsay Perfumeries Corp., New York.

C. W. Dunn Addresses Pharmacists

Charley Wesley Dunn addressed the New York branch of the American Pharmaceutical Association, January 9, at the College of Pharmacy, Columbia University, on the subject, "Legislation to Outlaw Price Competition and Unfair Price Discrimination from Commerce."

Dr. Bogart Lecture Schedule

Dr. Marston T. Bogart, Columbia University, has announced the following lecture schedule: January 11, at West Virginia University, Morgantown, W. Va; at 10 a. m. address on "The Part Played by Odors in this Little World of Ours"; at 8 p. m. address before the West Virginia section, American Chemical Society on, "Science and Art in the Perfume Industry."

This latter address will also be given on February 24 at the Great Neck High School, Great Neck, N. Y.; March 13 at Toledo, O. before the Toledo section, American Chemical Society; March 15 at Detroit before the Detroit section, American Chemical Society; March 16 at East Lansing, before the East Lansing section of the American Chemical Society.

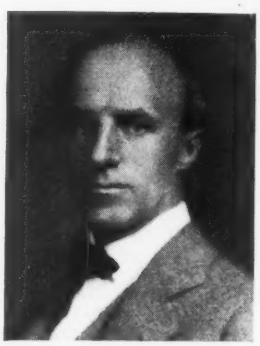
On March 14 the Ann Arbor Section of the American Chemical Society will be addressed upon the topic, "The Organic Chemistry of Vitamin A." On May 6th, Mount Holyoke College, on "Violets and Vitamins." Both of these latter talks illustrate the importance of the part which investigation of perfume compounds has played in throwing light upon the probable constitution of Vitamin A.

Dunn Explains Copeland Bills

The Copeland bills against unfair price practices in interstate commerce are now before the Senate Committee on Interstate Commerce of which the Hon. James Couzens is chairman. As summarized by Charles Wesley Dunn, the purpose of the bills is as follows:

1. *Senate 5050, Against Unfair Price Discrimination:* It amends section two of the Clayton Act, prohibiting price discrimination in interstate commerce which may be effective to substantially lessen competition or tend to create a monopoly in such commerce, subject to certain exceptions. The amendment makes the section apply to buyers as well as to sellers, whereas now it applies to the latter alone. This is done by revising the section to declare it unlawful "to offer or make or to solicit or accept any direct or indirect price discrimination" of the kind. The section now declares it unlawful "either directly or indirectly to discriminate in price," etc. Manifestly this law ought to run against sellers and buyers alike. To make it apply only to sellers, dealing in a buyers' market, is unjust and effective to encourage its violation induced by the buyer and for which the seller alone is legally responsible.

2. *Senate 5015, Against Unfair Price Competition:* It amends section five of the Federal Trade Commission Act, outlawing unfair methods of competition



Charles Wesley Dunn

from interstate commerce, by adding the following: "Unfair price competition is an unfair method of competition, within the meaning of this section. The term 'unfair price competition,' as used in this section, means any direct or indirect price representation or price cutting in the sale or offer for sale of a commodity in commerce, which deceives or misleads the purchaser or which is effective or has a dangerous tendency either (1) to unduly lessen competition or (2) to create a monopoly, in any line or part of commerce." The amendment is based upon these grounds: (a) unfair price competition ought to be outlawed from commerce and fair price competition made the legal rule of it; (b) the amendment is required to make the section apply to unfair price competition because in the Sears, Roebuck case (258 Fed. 307) the appeals court held that section five, as now drawn, does not "restrain an owner of property from selling it at any price that is acceptable to him"; (c) it is hoped and believed that this amendment will be influential to soften the section's harsh enforcement against the manufacturer's practical exercise of the policy of refusing sale to unfair price cutters, evidenced by the Beech Nut case (257 U. S. 441), and perhaps ultimately to induce the reversal of the five to four decision in that case.

Toilet Preparations Stand or Fall on the Quality of their **Basic Ingredients**

Neither secret formula nor manufacturing skill alone insure successful selling quality. The grade of basic materials you use, in the long run, makes or breaks your product. Over 40 years of highly successful experience with manufacturers and packers attests our ability to contribute the grade and variety of basic ingredient that will creditably take care of your product's quality.

Almond Meal	FACTOLAC	Talcum
Balsam Tolu	Gum Arabic	Irish Moss
Benzoin Gum	Gum Tragacanth	Lavender Flowers
Chalk (Precipitated)	Henna	Olibanum
Chinese Shavings	Henasoap Shampoo	Orris Root
Cuttle Fish Bone	Indian Gum (Karaya)	Powdered White Soap

QUINCE SEED OF THE HIGHEST OBTAINABLE QUALITY

HOPKIN'S NEUTRAL WHITE SOAP—Powdered, Granulated. Contains NO Soap Bark, Free Alkali, Free Acid, heavy metals. Totally free of rosin, sugar and foreign matter.

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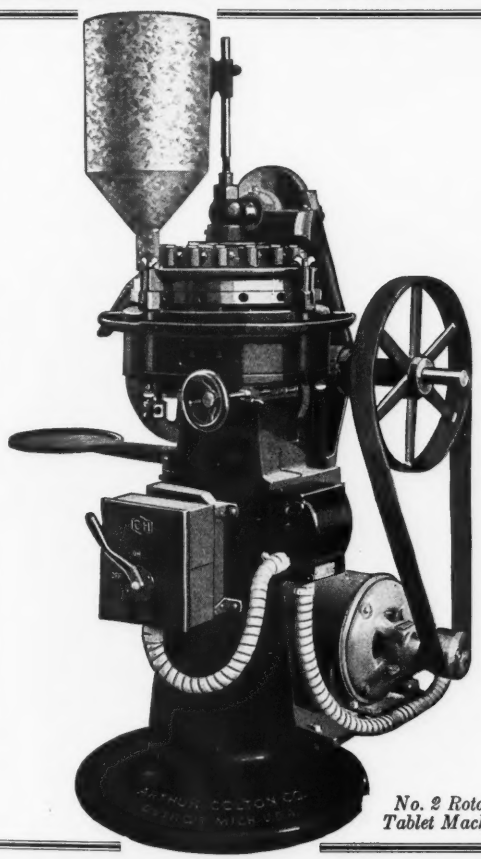


No. 2 Rotary Tablet Machine

New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

Write for Catalogs.

ARTHUR COLTON COMPANY

2620 East Jefferson Ave.
Detroit, Michigan

Dunn Would Change S. 5149

Charles Wesley Dunn has proposed that section 3 of S. 5149 (bill making counterfeiting of drugs a felony) be amended so that the basic definition of a counterfeit label upon which the bill rests, be modified to run only against a label so made as "intentionally" to induce the belief that the subject drug is the product or property of other than the actual maker, owner or seller.

Mr. Dunn says that in its present form the bill will apply to an innocent label simulation inadvertently made in good faith. Such a case occasionally arises, and as the bill is now drawn, this innocent violation would be a felony violation subject to a drastic penalty, says Mr. Dunn, who continues:

"I can conceive of no case of a deliberate counterfeiting of label the bill is designed to reach, which could not be proven to be an intentional act. Conversely the drug maker and dealer should not be exposed to a felony charge for a non-intentional violation. It suffices to leave him subject to a civil remedy."

Companies

Squibb Takes Over Building

E. R. Squibb & Sons are to have control of the Squibb Building which was recently sold at auction to satisfy a suit to foreclose two leasehold mortgages aggregating $4,500,000 brought in the Supreme Court, New York, by the Continental Bank & Trust Co., as trustee under a trust deed made in 1929 by the Abenad Realty Corp. to the S. W. Strauss Investing Corp. The amount of the liens, mortgages, etc., was $4,901,551, plus taxes of $445,520, and $28,798 in tax interest and penalties. Unpaid and accrued rent amounted to $50,809. The building is one of the most prominent uptown business structures, standing on a plot of 120 feet frontage on Fifth Ave., and 200 feet on 58th st. The owner of the fee is the Mary Mason Jones Estate.

The successful bid on the property was $450,000 which was merely a bid on the leasehold interest, and was made by Leon R. Jilson, lawyer, as head of the Jones Estate Corp. Under the new arrangement holders of Strauss mortgage bonds will get new junior liens to be known as second trust 20 year bonds. For every $1,000 bond of the original issue, a $100 junior bond and 10 shares of common stock in the new corporation will be issued.

The Squibb Company will purchase $1,000,000 of the second trust issue, to provide working capital and to eliminate defaults. In supplying this new money, Squibb will receive about 80 per cent. of the common stock and will name seven of the nine directors. An issue of about $5,000,000 in prior mortgages will go to the trustees of the Mary Mason Jones Estate in payment for title to the land and to the holders of about $500,000 secured by this land.

The Squibb lease, originally taking in 12 floors, will be revised to cover only three floors with annual rental of $63,000.

Hoffmann-La Roche Protects Allanol

The Supreme Court of the State of New York has issued a restraining order in a suit brought by Hoffmann-La Roche, Inc., Nutley, N. J., enjoining the defendants in the suit from making, selling or offering for sale any preparation for use as a hypnotic and/or analgesic in the form of tablets made in imitation of the shape, configuration and appearance of Hoffmann-La Roche's "Allonal" tablets of substantially identical with or like the "Allonal" tablets.

It was shown that tablets had been made in exact imitation of the distinctive shape and appearance of the "Allonal" tablets and in some instances were being substituted on prescriptions calling for "Allonal." Suit was instituted upon a charge of infringement of the trade-mark and also for unfair competition by reason of the simulation of the distinctive shape and appearance of the tablets and a motion for injunction was brought.

In support of this motion for injunction, it was shown that it was a well-known practice of physicians and others prescribing "Allonal" tablets to prescribe less than the full contents of the Allonal 12's, and that it was the practice of the medical profession to examine the filled prescription upon a subsequent call on the patient. It was also disclosed by affidavits that it is the practice in many hospitals to keep "Allonal" tablets in a container on each floor of the hospital and that the nurses were accustomed to distinguish the tablets by their distinctive shape and appearance. In support of these facts, the affidavits of a large number of physicians, nurses, druggists and others were presented to the court.

It was also shown that the imitation tablets were being substituted on prescriptions for "Allonal" tablets.

New Ungerer & Co. Appointments

Ungerer & Co., New York, has announced two important changes in its sales organization as of January 1, 1933.

Even M. Tysdal, for the past three years in charge of the St. Louis office, has been transferred to Chicago where the company has new headquarters and facilities for carrying stock in the Orleans-Huron Building, 325 Huron St. The telephone number is Superior 7589.

Clifford L. Iorns has succeeded Mr. Tysdal as representative in the St. Louis district. Mr. Iorns is very well acquainted with the Ungerer line of essential oils and perfumery raw materials as he is returning to the company following an absence of three years, prior to which he held the present representation for many years. In addition to St. Louis, Mr. Iorns will cover the Southeastern states, Kentucky, Tennessee and portions of Indiana and Ohio. The St. Louis office is located at 619 Clark Ave. The telephone number is Chestnut 6813.

Mr. Tysdal is well known in Chicago as he was associated with the trade there for many years before taking on the Ungerer representation in St. Louis three years ago. Working from Chicago, he will cover the states of Illinois, Iowa, Minnesota, Michigan, portions of Indiana and Ohio and Kansas City.

Affiliated Products Appoints

Affiliated Products, Inc., Chicago, has appointed Blackett-Sample-Hummert, Inc., to handle its newspaper and magazine advertising in addition to radio advertising which this agency has handled in the past. Subsidiaries include Neet, Inc., Edna Wallace Hopper, Inc., Kissproof, Inc., Jo-Cur, Inc., and Louis Philippe, Inc.

Bayer & Phillips Ads

Phillips' Milk of Magnesia and Bayer Aspirin were recently advertised together in a paragraph reading as follows: "Don't dose yourself with a lot of medicine. You can alkalinize your system against colds with a little Phillips' Milk of Magnesia. If you should catch cold, take some Bayer Aspirin; . . . But if you detect any sign of flu, or even suspect it, get to bed at once and call your physician.

Fritzsche Bros. Price Chart

Fritzsche Brothers, Inc., New York has issued reproductions of two very interesting charts showing the price trends of essential oils from 1929 up to the present time. These charts have been most carefully prepared by the company's statistical department on the basis of actual price records and should prove of interest to all concerned with the essential oil markets. Copies may be obtained upon request.

Consolidated-Guardian Plant

Consolidated-Guardian Chemical Co., Phoenix, Ariz., pharmaceuticals, has recently reorganized and plans to establish and completely equip a new factory within the next six months. It is tentatively planned to locate the new factory in Los Angeles, Calif. Edward Dorsey is president of the company.

Chocolate Cascarets

Sterling Products Co. is now manufacturing and selling "Cascarets" in chocolate form.

Williams Sponsors the "Face that's Fit" . . . . NATIONAL Supplies the Tubes

"Face Fitness. It begins with the five pleasant minutes you spend with Williams Shaving Service. . . In any company the Face that's Fit is a perfect introduction. That's why millions of Face-Fit men insist upon 'Williams' . . ."

It is a matter of pride to us that National Tubes are used exclusively for Williams Shaving Cream, insuring this product the "perfect introduction". Smart and enduring, individual in appearance, these tubes are the outward semblance of quality to millions of Face-Fit men.

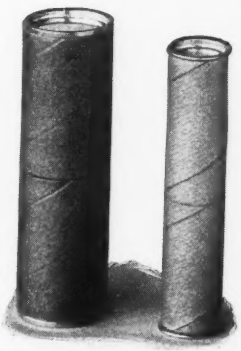
National Tubes meet every test for quality and endurance. . . . In addition they incorporate several *small but essential differences* which cannot be duplicated. Write today for samples and particulars.

NATIONAL COLLAPSIBLE TUBE COMPANY

PROVIDENCE RHODE ISLAND

NEW YORK OFFICE
331 Madison Avenue
Phone: MUrray Hill 2-1626

REDUCE PACKAGING COSTS



Now is the time to improve your packages and reduce your packaging costs. You can do both with Cleveland Containers. Many manufacturers have made this change and materially reduced their packaging costs --- and at the same time increased their sales through the improved package.

In the Cleveland line you will find a size and type of tubular container for practically every packaging need---and at a reasonable cost. Why not investigate NOW? Write for complete details and let a Cleveland man help you with your packaging problems.

THE CLEVELAND CONTAINER CO.
10627 BEREA ROAD, CLEVELAND, OHIO
Chicago—Pittsburgh—Philadelphia—Detroit—Rochester—Hoboken

"FILMA-SEAL"

(the double seal of cap and film)

Is used on many Nationally known products.

PREVENTS
EVAPORATION — LEAKAGE — TAMPERING

Send us a few of your packages to "FILMA-SEAL" and we will prove its advantages to you.

FERDINAND GUTMANN & CO.
Brooklyn, New York

Trade Marks Reg. Pats. Pending

Royal Drug Takes Zucker Patent

Royal Drug Co. of Duquesne, Pa. and Brooklyn, N. Y., has secured exclusive license in the proprietary medicine field to patents and processes of Professor Zucker of Columbia University for increasing vitamin D. content of cod liver oil. The company has organized a subsidiary, Double D Laboratories, to market a cod liver oil product under the name, "Double D Fortified Norwegian Cod Liver Oil."

U. S. Chemical & Drug Sues

United Chemical & Drug Co., Bridgeport, filed suit, Jan. 7, for $10,000 damages against the Remington Arms Co. These two firms have adjoining factories. The drug company charges that as the result of explosion last March a piece of metal was thrown into the drug company warehouse and broke a water pipe. The warehouse was flooded and thousands of dollars worth of drugs and chemicals which had been stored there were destroyed.

Shellmar Products Acquires

Shellmar Products Co., Chicago, has acquired the Transparent Packaging and Printing Co., New York. The latter will be operated as the Transparent division of the Shellmar company and will be established in a new plant at West New York, N. J. John Smith, who was president of the Transparent company, is now associated with Shellmar.

Abbott Expansion Plans

At a meeting of the branch and district managers of the Abbott Laboratories, held in North Chicago, December 28, 29 and 30, a three-year plan of expansion was announced which calls for the immediate enlargement of the sales force and the launching of an intensive and continuous advertising campaign to the medical profession and drug trade.

In discussing this program, Dr. Alfred S. Burdick, president, stated that much of the success of the company had been due to extensive research, resulting in the development of new products which embodied the most recent scientific medical discoveries. There has been no curtailment of sales or advertising activities, he explained.

It was further stated that definite goals of achievement had been assigned to all departments of the business, including seven branches—New York, Chicago, Indianapolis. St. Louis, Los Angeles, San Francisco and Seattle, also for the Canadian subsidiary, the Abbott Laboratories, Ltd., of Montreal.

R. M. Cain, vice-president in charge of sales, stated that group meetings of the sales force had been arranged to take place in various parts of the country during the first two weeks in January. At these meetings the details of the purposes of the three-year program were explained.

S. DeWitt Clough, vice-president and director of advertising, is in charge of the 1933 "Make Your Goal" Campaign, the details of which he explained at the branch and district managers' meeting. The first mailing in this campaign commemorates the 45th Anniversary of the Abbott Laboratories.

James F. Stiles, treasurer of the Abbott Laboratories, announced that December 1932, was the best December in five years from the standpoint of volume and profits.

Scott & Bowne Suit Dismissed

Dismissal of the stockholders' suit against Scott & Bowne, Inc., manufacturer of medicinal preparations, Bloomfield, N. J., was ordered by consent, December 21, by Vice-chancellor Berry in Newark.

Houbigant Sales Corp. Formed

Houbigant Sales Corp. has been formed to unify and simplify the handling of sales of Houbigant and Cheramy products. The company has appointed about 200 authorized distributors and announced reductions in prices upon most of the line.

Dr. Klein to Survey Whelan Drug

Dr. Julius Klein, assistant secretary of the Department of Commerce, has been appointed to make a survey of the Whelan Drug Co. and the United Cigar Stores Corp., with a view towards recommending specific selling policies. He was appointed by the federal receiver in bankruptcy and will receive $7,500 for his first month's work.

Smith, Kline Buys Miller

Smith, Kline & French, Inc., wholesale druggist, Philadelphia, has purchased the business of the Miller Drug Co. that city.

Allcock Agency

Allcock Manufacturing Co., Ossining, N. Y., drugs, has directed Small, Kleppner & Seiffer, Inc., to take over its advertising account.

W. A. Woodbury, Inc., Formed

William A. Woodbury, Inc., has been organized in New York to merchandise hair preparations. W. H. Reardon is president; J. J. Monahan, vice-president; and Elliott A. Meyer, secretary-treasurer.

Seydel Abandons Nitro Plant

Abandonment of the chemical plant of the Seydel Chemical Co. at Nitro, W. Va., is announced by the president of the company, Herman Seydel. Future operations will be conducted at the Jersey City plant.

Givaudan Industrial Unit

Givaudan-Delawanna, Inc., has created an industrial aromatics division which will concentrate upon the sale of aromatic chemicals for rubber goods, textiles, leather, printing inks, paints, polishes, and all products presenting an odor problem.

Eugene Appoints Miller & Hulbert

Eugene, Ltd., New York, has elected Charles H. Miller, vice-president in charge of sales and Murray Hulbert, vice-president and counsel.

Franco-American Package

Franco-American Hygienic Co., Chicago, is commemorating the Chicago Century of Progress with a new powder box designed to represent the World Fair Skyline.

Abbott executives and branch managers at conference

Modernize!

YOUR PRODUCTS

PROTEGIN

An absolutely odorless lanolin derivative. More than just an absorption base. It is offered in two grades:

PROTEGIN for HORMONE and TISSUE CREAMS having an unusually high water content and absorbability.

PROTEGIN X for COLD and CLEANSING CREAMS having a high oil and fat content.

TEGIN

The GLYCERIN ESTER of MONOSTEARIC ACID. A natural fat which does away with harmful alkaline creams. The simplest way to make beautiful VANISHING CREAMS that *are* stable.

TEGIN is ideal for STABILIZING STEARIC ACID CREAMS without changing the outer appearance of the creams.

COLD CREAMS
SUNBURN CREAMS
VANISHING CREAMS
TISSUE AND HORMONE CREAMS
AGAR & VEGETABLE OIL EMULSIONS
HAIR WAVING PREPARATIONS
FEMININE ANTISEPTICS
EYE WASHES
OINTMENTS

PRESERVATIVES

NIPAGIN M, NIPASOL M, and NIPABENZYL, chemically pure esters of p-hydroxybenzoic acid. Phenol coefficients: 3, 17, and 109. Neutral and non-irritating.

Recommended for their high efficiency in agar emulsions, gum solutions, eye washes, hair waving preparations, vaginal douches, vegetable oil emulsions, skin creams, and in any products which require an antiseptic or preservative.

Manufactured by the Julius Penner A.-G., Berlin-Schoeneberg, Germany.

Have you examined our Odorless ***Lanolin?***

TH. GOLDSCHMIDT CORP.

70 Pine Street BOwling Green 9-6335 New York City

MYSORE GOVERNMENT
Sandalwood
~~ Oil ~~

Distilled from
Santalum Album

{ INSIST ON ORIGINAL CANS AND CASES }

Agents for the United States and Canada

W. J. BUSH & CO.
(Incorporated)
Essential Oils
New York

Chicago National City, Calif. Montreal

OTTO ROSE

"Union Bulgare"
OTTO of ROSE

A strictly pure Rose, produced in the distilleries of the Union Générale des Coopératives Bulgares and guaranteed by the Bulgarian Government.

●

Offered in original sealed containers only, direct to the consumer by:

Sole Agents for the U. S.
W. J. BUSH & CO., Inc.
New York Chicago National City, Cal.

Sole Agents for Canada
W. J. BUSH & CO., (Canada) Limited

Drug, Inc., Sells Boot Drug

Louis K. Liggett, chairman of Drug, Inc., is in London, negotiating for the sale of the controlling interest held by Drug, Inc., in Boots Pure Drug Company, Ltd., Britain's biggest chain of drug stores.

It is understood, according to the *N. Y. Times*, that Mr. Liggett will receive between $20,000,000 and $27,000,000 for the shares, which will then revert to British hands. He paid less than $10,000,000 for the controlling interest in 1920 and has received a steady stream of dividends since.

Boots Pure Drug Company, Ltd. The latter company has been 75 per cent. controlled by Drug, Inc. The Boots company operates 900 stores in Great Britain.

Robert Gair Divisions

Robert Gair Co., Inc., New York, has created three major divisions to handle its production and selling of boxboards, containers and folding cartons. The boxboard division will be headed by Robert H. Bursch, who will have charge of both manufacturing and sales. L. H. Gaetz will continue in charge of production of the folding carton division. F. S. Wakeman, has been appointed general sales manager for the folding carton division. He will continue in charge of the New York sales department. F. G. Becker has been appointed general manager of the container group of Gair plants and Chase Flint has been appointed general sales manager of the container division.

Hopkins Beauty Aids

J. L. Hopkins & Co., New York, has published a new folder, "Beauty Aids by Hopkins," which describes the products which the company makes for the cosmetic industry.

Squibb Radio Program

E. R. Squibb & Sons has started a new radio series over the NBC network dramatizing great moments in medicine and the part of the physician in the development of civilization.

Glass Products Booklet

Glass Products Co., Vineland, N. J., has published a colorfully-illustrated folder describing various types and styles of applicators. Copies may be obtained upon request.

Bost Appoints Agency

Bost, Inc., New York, Bost toothpaste, has appointed the United Advertising Agency, of that city, to direct its advertising account.

New Products

TARS

Scherk Corp., New York, has introduced a new shaving lotion under the name, "Tars."

GLENN YVONNE PRODUCTS

Glenn Yvonne Society Creams Co., San Francisco, has added two new items to its line, a deep pore cream and a lemon lotion.

REDWOOD PERFUME

Redwood Perfume Co., Eureka, Calif., has introduced a new perfume packaged in a box which represents a miniature redwood tree trunk.

BURROUGHS WELCOME LIVER EXTRACT

Burroughs Wellcome & Co., New York, is marketing a new concentrated liquid liver extract.

A. M. A. Accepts

NEOCINCHOPHEN-LEDERLE

Neocinchophen-Lederle, manufactured by Lederle Laboratories, Inc., Pearl River, New York.

A. M. A. Rejects

TONICKUM-ROCHE

Elixir Arsylen Compositum "Roche," formerly "Tonikum-Roche," because taken as a whole, "Tonikum"-Roche is a "shotgun" proprietary "tonic" marketed under a therapeutically suggestive name with misleading therapeutic claims and in such a manner as to lead to its indiscriminate and ill advised use by the public, which, when taken continuously, would tend to an undesirable accumulation of arsenic in the system.

ERGOFORTIS

Ergofortis, manufactured by Burrough Bros. Manufacturing Co., Baltimore, because it is marketed under an unacceptable proprietary name with incorrect and misleading claims.

A. D. A. Accepts

P. D. HALIVER PRODUCTS

Parke-Davis Haliver Oil with Viosterol and Soluble Gelatin Capsules Haliver Oil with Viosterol, both manufactured by Parke-Davis & Co., Detroit.

PYCOPE TOOTH POWDER

Pycope Tooth Powder, manufactured by Pycope, Inc., Joplin, Mo.

Removals

ATHENIA MFG. CO.

Athenia Manufacturing Co., New York, cosmetics, has moved to larger quarters at 31 East 31 st., New York.

POLY CHEMICAL LABS.

Poly Chemical Laboratories, Inc., Jersey City, cosmetics, has moved to 38 Montgomery st., that city.

PARIS LABORATORIES CO.

Paris Laboratories Co., Inc., St. Louis, cosmetics, has moved to new quarters at 6084 Maple ave., that city.

PARIS LABORATORIES, INC.

Paris Laboratories, Inc., New York, has announced its removal to 4411 Broadway, that city.

HELFRICH LABORATORIES

Helfrich Laboratories, Inc., New York, cosmetics, has announced its removal to larger quarters at 30 W. 26 st., that city.

IMPERIAL COSMETIC CORP.

Imperial Cosmetic Corp., New York, has leased space at 133 W 17 st., that city.

EGYPTIAN COSMETICS CORP.

Egyptian Cosmetics Corp., New York, has leased space at 509 Fifth ave., that city.

CLEVELAND CONTAINER

Cleveland Container Corp. has announced the removal of its Hoboken offices and plant to 607 W. 26 st., New York.

ROGER & GALLETT

Roger & Gallett, New York, cosmetics, has moved its offices to 500 Fifth ave., that city.

NORDA ESSENTIAL OIL

Norda Essential Oil & Chemical Co., New York, has leased 20,000 square feet of space at 601 W. 26 st., that city.

Financial

Industry's Stock Levels

Prices of common stocks of corporations in the drug and cosmetics industry ended the year well above the figures for the last two months of the period, according to the stock price indexes of the Standard Statistics Co., of New York. A comparison of the drug and cosmetics index with the index for 351 industrial corporations over recent weeks follows:

		(1926 average equals 100)	
		Drugs and Cosmetics	*351 Industrials*
1932			
Dec.	7	63.5	45.5
	14	65.0	46.4
	21	62.6	44.2
	28	63.0	42.9
1933			
Jan.	4	66.4	46.4
1932	High	88.3	61.6
	Low	45 0	31.9
1931	High	133.8	114.7
	Low	82.4	51.4

Earnings & Dividends

NORWICH PHARMACAL CO.

Norwich Pharmacal Co. has declared a regular dividend of $1 per share, and an extra dividend of $1 per share, on its capital stock for the quarter ending Dec. 31, 1932, and payable on Jan. 1, 1933, to stockholders of record at close of business on December 20, 1932.

This
Oil of Lemon
FOR LOWER COSTS

You get lower flavoring costs from Exchange Brand Cold Pressed Oil of Lemon not only because of its reasonable price. It can be depended upon for *uniformly fine flavoring value.* It is derived exclusively from California Lemons grown by the world's largest citrus marketers --- the Sunkist group. American methods of production control, protect your results. Try Exchange Brand for the lower costs that come from better performance.

Exchange BRAND

OIL OF LEMON
(California)

Sold to the American Market exclusively through:

FRITZSCHE BROTHERS, Inc.
78-84 Beekman Street
New York City

DODGE & OLCOTT COMPANY
180 Varick Street
New York City

Products Department
California Fruit Growers Exchange
Ontario, California

Producing Plant
Exchange Lemon Products Company
Corona, California

Agfa

Aromatic Chemicals are olfactorily *clean.* No good perfume can be created with basic materials of an inferior character. Expensive natural oils can often be spoiled by the addition of impure aromatic chemicals.

Agfa aromatics are the *finest it is possible to produce;* their cost is competitive; the results obtained with them are uniform.

Aldehydes C 8 to 18

Benzalacetone
Benzyl Cinnamate
Bromstyrol, Improved
Cinnamic Aldehyde
Cuminic Body
Di Methyl Hydroquinone
Floranol
Hydrocinnamic Aldehyde
Indol
Iso Butyl Furyl Propionate
Iso Butyl Salicylate
Methyl Acetophenone
Styralyl Acetate
Stryalyl Alcohol
Vanillose (Ethyl Vanillin)

New chemical bodies introduced by the Agfa add zest to old odors.

Aldehyde F K	Lilac
Floranol	Rose
Cyclamal	Lily
Jasminum	Jasmin
Bigarol	Neroli
Phyllonal K	Leafy, moss-like effect

Samples of Agfa products on request

GENERAL DRUG CO.
170 Varick Street
New York

907 Elliott Street
Windsor, Ont.

556 W. Congress Street
Chicago, Ill.
Phone: HArrison 7441

LARKIN CO.

The Larkin Co., Buffalo, N. Y., has filed notice with the Secretary of State at *Albany of a change in its capital from* 200,000 shares of $100 preferred stock and *200,000 shares of common stock of no par* value to 50,000 shares of $100 preferred stock and 50,000 shares of common stock of no par value.

LEHN & FINK

Lehn & Fink Products Co., reported for ten months ended Oct. 31: Net profit *after depreciation, Federal taxes and other* charges, $1,058,158, equal to $2.59 a share on 408,966 no-par shares, excluding stock held in treasury. Consolidated balance sheet as of Oct. 31 last shows total assets of $13,394,674, against $12,837,966 on Dec. 31, 1931; capital stock and surplus, $12,190,556, against $11,888,310. Current assets, including $516,500 cash and Dominion of Canada bonds, amounted to $2,313,880, while current liabilities were $454,204. A year previously current assets, including $457,846 cash and Dominion of Canada bonds, amounted to $1,654,285 and current liabilities $322,431.

The company voted December 28 to write down the value of the company's trade-marks, names, and so forth, to $1 from the sum of $7,968,539, at which they *had been carried on the books.*

Obituaries

Gilbert Colgate

Gilbert Colgate, former president and former chairman of the board of Colgate & Co., Jersey City, and a leader in religious and social welfare work, died suddenly in his sleep of a heart attack, January 5, at his home in New York. He was 74 years old.

He was born in Orange, N. J., on Dec. 15, 1858, a son of Samuel and Elizabeth Ann Morse Colgate and a grandson of

Gilbert Colgate

William Colgate, who founded the Colgate & Co. in 1806. He was one of five brothers who succeeded to the control of the firm on the death of their father. The other brothers were Sidney M. Colgate, Colonel Austen M., Richard and Russell. Russell is the only survivor.

Mr. Colgate's mother was a niece of *Samuel F. B. Morse, inventor of the tele*graph. His father and uncle, James B. *Colgate, were so generous in their bene*factions to Colgate University that it was *named in their honor.*

Gilbert Colgate was graduated from Yale University in 1883 and married in 1888 Florence Buckingham Hall of Buffalo, who died in 1920.

His association with the Colgate company began when he left college. He was *elected president in 1919, later becoming* chairman of the board. When the Col*gate-Palmolive-Peet Co. was organized, he* became a member of the board of directors, *continuing as such until his death. He* was for many years a member of the executive committee of the Associated Manufacturers of Toilet Articles.

Frederick C. Meisoll

Frederick C. Meisoll, cashier for the *Dodge & Olcott Co., New York, died* December 21 of pneumonia at his home in *Brooklyn. He has been associated with* the Dodge & Olcott Co. for forty-two *years, or practically his entire business* career.

L. R. Dronberger

LeDru Rollin Dronberger, central western representative for Mallinckrodt Chemical Works, St. Louis, for more than 32 years, died at the Mansfield General Hospital in Mansfield, Ohio, on December 29. He was in his 83rd year and was active in business up to the time of his death. *In fact he was attending to some of his* personal business affairs two or three days *before his death.*

He was born February 18, 1850 in Homer, Ohio. When a very young man he moved to Plymouth, Ohio. There he engaged in the retail drug business as he did later in Newark, Ohio. His first traveling job was with Lazelle, Marshall & Gardner Co., formerly wholesale druggists of New York. For more than 50 years he represented various houses in the drug business. Just before going to Mallinckrodt Chemical Works 33 years ago, he was associated with Thurston & Braidich, New York. While with Mallinckrodt Chemical Works, Mr. Dronberger covered the central-western territory. Earlier in his career with this firm he traveled as far west as Milwaukee and Chicago and as far east as Pittsburgh. His territory also included all firms as far south as the Ohio River.

He was probably the oldest traveling salesman in the industry. He was characterized by his sincerity and keen sense of humor. He had many friends and admirers whose confidence he won by his simplicity of manner. The loss of this man whose long length and quality of service has been an inspiration to so many, will be felt not only by his close business associates but by all with whom he came in *contact.*

Edward Mallinckrodt, 3d.

Edward Mallinckrodt, 3d, son of Edward Mallinckrodt, jr., chairman of the board of the Mallinckrodt Chemical Works, St. Louis, was drowned in the harbor at Boston, Mass., December 29, when the airplane he was piloting suddenly dived into the water. He was twenty-one years old, a freshman at Harvard University, and grandson of Edward Mallinckrodt, founder of the chemical *company bearing his name.*

Second Wolff Package Award

Packages developed and put on the market between January 1, 1932, and February 13, 1933, are eligible for entry to win the Irwin D. Wolf trophy, awarded by the American Management Association. The award will be presented at the Third Packaging, Packing and Shipping Conference, Clinic and Exposition to be held in New York from March 7 to 10.

In addition, honorary awards will be presented for the best packages in eleven classifications, which differ materially from those that determined last year's awards.

This year's classifications follow: Tin; glass, molded plastics; collapsible tubes; wood; visible display packages, such as glassine, etc.; paper bags and envelopes; set-up boxes; folding cartons; canisters, such as containers of board or fiber body with tin top and bottom, and miscellaneous. An award to shipping containers, the committee believes, might lead to a greater consciousness on the part of manufacturers of the importance of applying artistic standards to the shipping container.

Judges who will determine the winning awards are: Richard F. Bach, Metropolitan Museum of Art; Harry L. Gage, president, American Institute of Graphic Arts; C. F. Kettering, General Motors Corporation; Edward Molyneux, art director; Dr. Paul Nystrom, Columbia University; Harriet Sartain, dean of the Moore Institute of Art, Science and Industry, Philadelphia, and Marion C. Taylor, stylist.

New Incorporations

Vylm, cosmetics—Olvany, Eisner & Donnelly, 292 Madison Ave., Manhattan $10,000.

Mme. Virginia, beauty parlor—W. Katz, Metropolitan Building, Manhattan $5000.

Jan Evans, Ltd., cosmetics—Bloomberg & Bloomberg, 1482 Broadway, Manhattan 100 shs com.

Parfums Corday, cosmetics, etc.—Attorneys Albany Service Co., 315 Broadway, Manhattan, $50,000 1st pfd, $1625 2nd pf, no par, 100 shs com.

Economical Drug Corp—J. C. Myers, 292 Madison Ave., Manhattan, 200 shs com.

Universal Hygienic Corp., Newark, N. J., chemists—Harry Unger, Newark, $600,000.

Houbigant Sales Corp., druggist business—S. V. Ryan, Albany, $100,000.

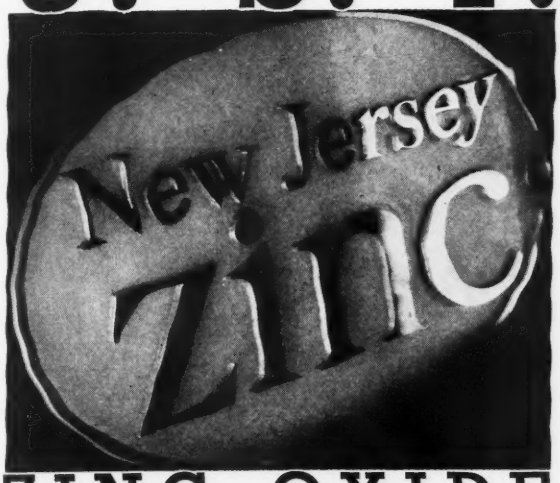
Peggy Glynn, cosmetics—E. R. Schultz, 291 Broadway, Manhattan, 100 shs com.

Fenwicke Perfumeries, cosmetics—A. Teitler, 261 Broadway, Manhattan, $20,000.

Latex Process Co., druggist—J. J. & W. J. Kalt, 2804 3rd Ave., Manhattan, 1000 shs com.

Standard Laboratories, Inc., Wilmington, Del., chemicals, drugs, medicines—Charles G. Guyer, Wilmington, $50,000, 7500 shs com.

U. S. P.



ZINC OXIDE

. . . . . by the pioneer manufacturer of zinc products . . . . . .

THE NEW JERSEY ZINC COMPANY

160 FRONT STREET, NEW YORK

Chicago Cleveland San Francisco

"A Product of Boston"

THE McINTYRE HANDY CAP TIGHTENER

(Patent Pending)

To loosen caps, press down and turn to left

To tighten caps, press down and turn to right

No. 1 size, similar in design to above, will tighten from the smallest size bottle cap up to 24 m.m. size.

No. 2 size, as illustrated above, will tighten sizes from 20 m.m. up to 38 m.m.

They are both suitable for C. T., Amerseal, Duplex and all moulded caps, without doing damage.

The price of the No. 1 size is sixty cents (60¢) each, and for the No. 2 size fifty cents (50¢) each, strictly F. O. B. Boston, Mass.

JOHN D. McINTYRE

17 Stellman Road

ROSLINDALE, BOSTON, MASS.

PILAR FRERES

Grasse (A. M.)

Established 1820

Essential Oils and Natural Flower Essences

● **BAUMODORS** (Soluble Resins)

Benzoin, Labdanum, Olibanum, Styrax, etc.

● ***Our Baumodors are obtained by isolating, through our own process, the perfume contained in many aromatic substances and have advantages in the following respects:***

Readiness for use; immediately soluble in alcohol and essential oils.

Concentration; they contain only the perfumed bodies of the raw material.

Regularity; constant in strength and odor.

Economy; leave no residue and are low in price.

Complete line carried in stock in New York.

BENJ. FRENCH, INC.

New York: 160 Fifth Avenue

Chicago: 549 W. Randolph Street

The FINEST FACE POWDERS

● **can be made only with the highest grade of raw materials.**

THESE ARE THE BEST ON THE MARKET

- SUPER TALC RFR
  SUPER WHITENESS · SLIP · IMPALPABLE
- COLLOIDAL CLAY No. 30
  FINE · EXCELLENT COVER POWER · ADHESION
- ZINC OXIDE U. S. P.
  GENUINE VEILLE MONTAGNE
- TITANIUM DIOXIDE
  MARVELOUS COVERING POWER
- ZINC AND MAGNESIUM STEARATES
  WHITE · FLUFFY · CLINGING
- MAGNESIUM CARBONATE
  HIGH ABSORPTION
- PRECIPITATED CHALK U. S. P.
  FINE · WHITE · HIGH ABSORPTION
- COSMETIC OCHRES
  (FIVE TIMES CONCENTRATION OF NATURAL OCHRES · GRITLESS · UNIFORM)
- COLORS OF ALL SHADES

Write for samples and prices.

R. F. REVSON CO.

110 W. 40 Street **New York**

Chemicals for the Cosmetic Industry

What's New in Medicines

(*Continued from page 26*)

hoarseness, sneezing, asthma, hay fever, insect stings, rheumatism, gout, sciatica, neuralgia. Robert Geller, Karlsruhe

Duonettae No. VIIb—Contains ber. v., card. ben., card. m., chamomile, cinchona, franguli, hydr., juniper, lycopodium, peppermint, quassia, tar., thlasp. b. p., turt. calcium carbonate, cupric acetate, manganese chloride, ph. sulf., merc.d., sodium cholate, sulf., prod. ric. For inflammations of gall, circulatory system of liver, liver abscesses, jaundice, retardation of gall secretion, gall stones, digestive disturbances. Dr. Willmar Schwabe, Leipzig.

Ederma—Contains cholesterin and other lipoids, albumenoids, for example cystine, tryosine, tryptophan and eleidin in addition to skin-protecting and skin-forming substances. Treating chafing in babies. Dr. S. Meyer & Co., G.m.b.H., Berlin.

Enatin—Soft gelatin capsules. One gram contains peppermint oil, juniper oil, turpentine oil. For conditions of kidneys and urether, such as stones, also inflammation of gall bladder and gall passages. Chemische Fabrik Helfenburg A.G., Helfenburg bei Dresden, Germany.

Ephedra Inhalat Esseff—Inhalating fluid containing ephedrin. For asthma, bronchitis, pertussis, rhinitis vasomotoria, hay fever, seasickness, pulmonary tuberculosis. Saverstoff Fabrik G.m.b.H., Berlin.

Gajanton—Contains active ingredients of cinchona and willow bark, obtained by action of acid, alkaline and neutral substances in form of calcium, sodium and lithium derivatives, and amidopyrine, phenacetine and caffeine. Treating myralgia, neuralgia, arthritis, catarrhal and inflammatory conditions of parts of respiratory tract; allergic and other infections, seasickness, asthma, hay fever, grip, malaria and dysmenorrhoea. Apotheker E. Metz, Dortmund, Germany.

Cumana—Ten per cent solution of copper-manganese compound, containing 2.1% copper and 3.64% manganese. In 1:200 and 1:400 solution for local treatment of gonorrhoea. (See Kilnische Wochenschrift, 1932, page 87). C. F. Boehringer & Soehne, Mannheim-Waldhof, Germany.

Elastocapsil—Elastic capsicum plaster. P. Beiersdorf & Co., A. G., Hamburg.

Heilit—Contains camphor, rosemary, melissa, eucalyptus leaves, menthol and water. For rheumatism and like. Waegner & Goedicke, Salzwedel, Germany.

Ophinal—Contains 0.075 gram phenacetin, and 0.05 gram each dimethylaminophenazone, acetylsalicylic acid and 0.025 gram caffeine. (See Klinische Wochenschrift, 1932, page 87).

Silphoscalin—Tablets containing calcium phosphate, silicon (vegetable origin) strontium, lithium medicinal carbon, milk sugar and essential oils of mustard. For infections of respiratory tract including tuberculosis. (See Medische Klinik, 1932, number 1). Carl Buehler, Konstanz a. Bodensee, Germany.

Stronthese—Solution of 0.27 gram benzyl-hexamethylebetetramine-strontium salicylate in 10 cc. distilled water. Intravenous injection in cholelithiasis, cystitis and like. (See Klinische Wochenschrift, 1932, page 87). Dr. R. & Dr. O. Weil, Frankfurt-am-Main.

Vingakersgubbens Tjaerkraem—Yellowish, stocky, fatty mass with tarry odor for treating skin eruptions. Consists essentially of mixture of wood tar, wool fat, and salicylic acid, boric acid and metallic salts. (See Pharmazeutische Zeitung, 1932, page 81). Terniska Artiklar, Stockholm, Sweden.

Dolit Spiritus—Contains pine needle oil, rosemary oil, oil of eucalyptus, mustard oil, camphor, iodine, Spanish pepper, chloroform, sal ammoniac, alcoholic soap solution. Analgesic in rheumatism, nerve pains, etc. P. Scheibner, Oetzsch-Markkleeberg, Germany.

Eujecor—Almost 100% cod-liver oil with 500 vitamin A units and about 225 vitamin D units per gram of oil, containing also bitter principles and glycosides. Made by digesting cod-liver oil with various herbs. (See Aufrecht, Pharmazeutische Zeitung, 1932, page 81). Pharma Max Loebinger & Co., G.m.b.H., Berlin.

Lithisal—Combination of citrates, tartrates and sulfates with lithium citrate, hexamethylenetetramine and piperazine quininicum. For gout, gall-bladder troubles, kidney diseases and bladder diseases. Fabrik Chemische pharmazeutische Praeparate G.m.b.H., Apotheker Kuttner & Starke, Berlin.

Pantocaine Nitrate—Local anaesthetic. Used in place of hydrochloride for preparation of silver salt solutions. (See Pharmazeutische Zentralhalle, volume 72, pages 135 and 605). I. G. Farbenindustrie A. G., Leverkusen am Rhein.

Sangsan—Made from senna leaves, tamarind pulp and cassia fistula and other bitter-tasting drugs. Blood purifier. (See Pharmazeutische Monatshefte, 1931, page 273). Bi-Bau Werk, Stettin, Germany.

Tebecesan—Tablets containing calcium-silicon-phosphorus base with 0.03 mgm. arsenic. For tuberculosis. Chemische Pharmazeutische Laboratorium der Stadtapotheke in Schurgast O. S., Germany.

Triasponin—Extracted substances from ipecac, senegal, primula and saponaria rubr. also ammonium chlorate and anise oil. One tablet 3 to 4 times daily. For bronchitis and tuberculoses. Chemische Pharmazeutische Laboratorium Dr. Pietschmann, Vienna, Austria.

Quadro Nox Capsules—Greenish gelatin capsules containing 0.2 gram diethylbarbituric acid and 0.05 gram quadronal (without caffeine). Sedative. Asta A.G. Chemische Fabrik, Brackwede i. W., Germany.

Stephosept—Tablets containing gold iodate, calomel, sulfur and thuja in homeopathic dilution. For syphilis, carcinoma, gout, inflammation of bladder, constipation, psoriasis, ulcus cruris, etc. Dr. Willmar Schwabe, Leipzig.

Rechbasily Drops—Contains garlic extract in solution with 3% potassium sulfide, 0.5% sodium sulfide, 0.9%

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ammonia and 0.2% ammonium chloride. (See Rojahn and Filss, Apotheker Zeitung, 1932, number 60). F. W. Rech, Berlin, Germany.

Rhiase—Contains active ingredients of certain solanacea drugs in homeopathic dilution, activated with soluble calcium salts. For colds and catarrhs. Engel Apotheke, Frankfurt-am-Main, Germany.

(Continued on page 76)

The Trend in Essential Oils

(Continued from page 35)

close to, if not actually on, bed rock in consumption, production, cost of production and of distribution.

The very low prices existing no longer tempt consumers to over-buy and as a result inventories of both distributor and consumer are at a minimum. The scramble to maintain volume and the unwillingness of distributors to turn down orders even though a loss is involved have indirectly led to the introduction into this market of considerable quantities of sub-standard, poor quality goods. However, consumers have found that the purchase of such material does not point the way to recovery, is not true economy, and the demand for quality which for a brief period seemed to be absent is again paramount among important consumers.

Essential Oils	*Prices Jan. 2, 1932*	*Prices Dec. 31, 1932*
Anise Star	.41	— .34
Bay	1.90	— 1.70
Bergamot, H. P	2.10	— 1.90
Bois de Rose	1.40	+ 2.00
Cananga	1.50	= 1.50
Cassia	1.00	— .85
Caraway	1.45	= 1.45
Cedar Leaves	.90	— .70
Cedarwood	.31	— .30
Citronella, Cey	.35	= .35
Citronella, Java	.55	— .50
Cloves	1.05	— .80
Coriander	4.25	— 4.15
Eucalyptus	.27	— .22
Geranium, Alg	3.75	+ 4.25
Geranium, Reuni	3.50	+ 4.25
Hemlock	.90	— .80
Lavender Flowers	1.95	— 1.65
Lemon, Ital	1.25	— 1.00
Lemon, Calif	.75	— .70
Lemongrass	.60	— .50
Limes, Dist	8.50	— 7.00
Limes, pressed	13.00	—12.00
Nutmeg	1.00	— .85
Orange, Ital	2.00	— 1.35
Orange, Calif	1.80	— .95
Patchouly	4.00	— 3.25
Pennyroyal	1.00	+ 1.35
Peppermint, Rect	1.75	+ 2.10
Petitgrains	1.00	— .90
Pine Needles	.60	+ .70
Rosemary	.46	— .38
Rose Otto	12.00 oz.	—11.00 oz.
Safrol	.29	— .22
Sandal, E. I	6.50	— 6.00
Sassafras, Artif	.26	— .19
Spearmint	1.25	— 1.00
Spike Lavender	.75	— .65
Thyme, Red	.70	— .65
Wormseed	2.25	— 2.10
Wormwood	4.50	— 3.00
Vetiver	5.00	— 3.75

+Indicates ADVANCE. —Indicates DECLINE. =Indicates NO CHANGE.

Industry's Books

Proceedings of the Semi-Annual and Annual Meetings of the American Pharmaceutical Manufacturers' Association, 1931-1932.

This yearbook containing the complete minutes of the two meetings of this association is especially interesting because of the many papers of outstanding value to the manufacturers in this field which it contains.

Selling Yourself, by Edward F. Dalton, 161 pages, published by Ripton Co., Inc., New York, $1.00 net.

The second edition of this book contains among other things a letter from and sketch of Louis K. Liggett.

Ailments of the Leg, by Otto Meyer, 128 pages, Elliott Publishing Co., New York, $1.00 net.

A discussion of varicose veins, phlebitis, milk-leg, thrombosis and leg ulcers.

Editor's Correspondence

Editor, Bombay.
Drug & Cosmetic Industry,
Sir:

We have had the pleasure of going through your journal at the library of the American Consul at Bombay and we have found it the most interesting and useful journal of its kind. Please enter our subscription.

CASSUM & CO.

View of the new plant of Compagnie Parento, Inc., at Croton-on-the-Hudson, N. Y.

WE HARNESS THE RAINBOW

All men experienced in packaging realize the importance of color as a stimulant to sales. When glass and color are used together the effect is particularly telling . . . But up to very recently, the cost of this combination has been prohibitive.

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OWENS-ILLINOIS GLASS COMPANY

THE SPECTRUM IN GLASS

Competition of late has loaded unusual burdens on sales executives and on those who cooperate with them in the design of sales-making packages. Owens-Illinois is glad to help relieve these burdens with virtually an entire "spectrum" of applied color glass containers. The possibilities of this ware for intensifying eye-appeal and package identification are interesting especially with the effects obtainable by original label and cap treatment. . . . Owens-Illinois Glass Company, Toledo, Ohio.

OnIzed CONTAINERS

OWENS-ILLINOIS GLASS COMPANY

Drug Markets

Review of conditions affecting markets and prices of chemicals, aromatics, essential oils, flavors, crude drugs and other raw materials, together with an alphabetical list of market prices.

Section also contains condensed review of patents and abstracts of particular interest to the chemist and those in charge of technical control.

Menthol Position Unchanged

Little change is noted in the Japanese menthol situation. Stocks on spot are small and prices quite firm at previous levels ranging from $3.25 to $3.40 per pound as to quantity taken. There has been some improvement in call due to the seasonal prevalence of colds and the mild form of influenza that is rather widespread throughout the United States. Cables from the primary market continue firm at the late advance and it is said that a slight trade boom there has aided the Japanese in maintaining their position.

Consul Howard Donovan, Kobe reports that exports of menthol crystals from Japan during the first seven months of 1932 amounted to 368,719 pounds valued at $738,500, an increase of 58 per cent in volume, when compared with similar imports during the same period of 1931, which amounted to 232,596 pounds valued at $708,000. The United States received 62 per cent of the 1932 shipments.

The year 1932 opened with an abundant supply of crude peppermint oil on hand in Japan but despite this fact prices had a rising tendency due to the decline in value of the yen. Another reason for the strong tone of the market was the activity of the Hokkaido Farmers' Association which lent money at low rates to interest to a number of producers in order to assist them in withholding their crops from the market.

The output of crude peppermint oil in Japan during 1931 amounted to 261,000 pounds in Honshu and 924,000 pounds in Hokkaido, a total of 1,188,000 pounds. The carryover of menthol crystals and peppermint oil combined was 528,000 pounds as of July 1, 1932, an amount less than usual. The Hokkaido crop has not yet been harvested, while the Honshu crop, which has been harvested, amounted to 198,000 pounds.

Exports of peppermint oil from Japan during the first seven months of 1932 amounted to 44,880 pounds valued at $323,000, a gain of 164,816 pounds in volume and $68,600 in value when compared with similar exports during the first half of 1931. France, England and Germany combined took approximately half of the 1932 shipments.

Mercury Strong

Mercury declined $1 per flask in the spot market during the past month and is now generally quoted at from $18 to $19 per flask. This tendency can only be explained by the turn of the year lack of consumer interest as statistically this commodity is in a strong position. There are said to be not more than five mines operating in the United States at the present time and stocks in all quarters are quite low.

There is said to be an accumulation of buying orders that will undoubtedly result in an advance in this commodity when ready for execution.

With domestic production at low ebb it is not unlikely that European mercury will play an increasingly important part in sales if the shortage is accompanied by an increased consumer request. Imported mercury is worth about $56 per flask in New York.

Santonin Market Steady

The late advance in santonin brought a little more inquiry in some quarters. The position has been maintained and the market continues quite firm at from $65 to $70 per pound.

The Department of Commerce reports that according to the sole concessionaire for minor forest products in Kashmir, santonin is being produced in his factory in Baramula, Kashmir, to the extent of from 1,200 to 1,600 kilos annually.

He states further that this santonin is up to British Pharmacopoeida standards; that it is packed in paper-lined tins of two kilos capacity, the customary packing for export being three of such tins packed in a plywood case; that no santonin sales had been made directly to the United States but that appreciable quantities had been shipped to London, at an average price during the period January-July, 1932, of £41 per kilo.

Phenobarbital in Good Demand

The market for phenobarbital is steady and fairly active at $6.50 per pound in 100 pound lots. Prices are being sustained in all quarters.

Alcohol Market Dull

With weather conditions so far this winter being more favorable for anti-freeze alcohol consumption than a year ago, the distillers of this product report a steady demand on supplies held by jobbers and distributors. An unsold surplus is not therefore likely and this will undoubtedly prove a stabilizing factor for the months ahead.

Prices are quite steady as indicated by the first 1933 quarterly schedule issued this month. There are no basic changes from the schedule that prevailed during the last quarter of 1932.

Current quotations for the period January 1, to March 31, 1933 are as follows, quoted f.o.b. works on the basic formula completely denatured alcohol No. 5.

C. D. A. 5 in drum carloads	$0.385
5 to 19 drums	0.445
1 to 4 drums	0.465

Credit of 1c per gallon is given on this formula in carlots or more.

Strychnine Sharply Competitive

Stiff competition has developed between sellers of domestic and of the imported grades of strychnine. Alkaloid U. S. P. crystals in 100 oz. tins is 45c per ounce, the powdered is 27c per ounce. Sulfate U. S. P. powdered is 24c per ounce. The general tone of the market continues unsettled at the lower levels.

Citric Acid Demand Routine

Trading in citric acid is about routine but principal producers in this country look forward to an improvement in sales volume induced by the low prevailing prices and the consuming season that must be prepared for in the not far distant future. Competition still continues keen but some quarters feel that prices will not be depressed further.

In the nine months of 1932, exports of citric acid from Czechoslovakia totaled 291 metric tons, a 21 per cent increase over outgoing shipments in the corresponding period of 1931 of 240 tons. This quantity increase was accompanied by a decrease in invoice value of 17 per cent—from 3,593,000 crowns ($106,350) in 1931 to 3,001,000 crowns ($88,830) in 1932.

Cod Liver Oil Range Widens

The better known brands of cod liver oil are selling in the spot market at from $18 to $21 per barrel. This represents a widening of the price range covering the various brands. There has been a slight lull in the demand, however, and some importers are in receipt of slightly lower cables from abroad.

Approximately 188,000 wine gallons of medicinal cod liver oil, valued at $134,786, were exported from Newfoundland to the United States during the period from January 1 to November 6, 1932, an increase over the same period in 1931, when 133,410 wine gallons, valued at $93,800, were shipped to the United States. The average price paid at St. John's for medicinal cod liver oil during 1932 has been $0.60 per gallon, as compared with $0.70 during 1931.

Glycerin Remains Weak

There has only been a routine movement of glycerin in the spot market during the past month. In view of the low prevailing price levels no further shading is anticipated. Chemically pure remains unchanged at 10¼c per pound.

The only unsettling influence in the New York market is the prevalence of fairly large quantities of C. P. material from abroad that is being offered at prices slightly under that of American refiners.

French Bromine Greater

French Bromine products exports during recent years are shown as follows:

Year	*Bromine Metric tons*	*Bromides Metric tons*
1929	347	27.5
1930	782	50
1931	626	91
1932 6 mos	442	31

The bromides include ammonium, sodium, potassium, barium, calcium, and strontium, but no figures are available to show their relative importance.

Iodine from Spain

It is reported that the Spanish Government has granted a concession to the Sociedad Espanola del Yodo S. A. for the exploitation of seaweed on the north and northwest coasts of Spain, which will be used for the production of iodine.

Ephedrin Proves Popular

The Department of Commerce reports that the advancing popularity of ephedrine products appears in the expanded volume of ephedra vulgaris imports in 1932, the most important crude drug contribution of China, the exclusive source of the supplies noted. The value thereof, however, was considerably lower than in 1931. Receipts during the first nine months of 1932 aggregated 521,300 pounds valued at $13,000, as compared with 449,000 pounds worth $20,900 in the same period of 1931.

Seidlitz Mixture Steady

Seidlitz mixture continues unchanged in price at from 10¾c to 11¼c per pound. Although raw material is at a very low price level there is still said to be some unsettlement in all tartar products. The general low prices, however, would not indicate that further shading is likely.

Camphor Prices Holding

Spot camphor prices are holding up very well in view of the fact that exchange on the primary market is sharply lower. Leading dealers here reported a satisfactory volume of business passing in this item. There were no price changes noted during the past month.

Essential Oil Situation in France

Exports of perfume oils from Nice, France, a principal export distributing center for French oils, to the United States during the first nine months of 1932 totaled approximately $351,000 in value as against $500,000 and $801,000 in the similar periods of 1931 and 1930, respectively. Exports of Grasse essential oils, which have represented as much as 75 per cent of the total output in recent years have been especially hard hit by a virtual cessation of the German demand and considerably lowered imports by the United States. Producers were encouraged in October and November, however, by numerous inquiries and several good orders from the United States. Generally speaking, prices for these oils have declined from between 30 and 40 per cent, excepting Geranium oil, for which prices have held firm.

An interesting method of curtailing production so as to avoid surplus was noted in the jasmine industry. Most of these flowers are bought under contract made with farmers to cover a period of four or five years. The contract prices for jasmine flowers is 12 to 16 francs per kilo. This year the growers were paid about five francs per kilo *not* to pick the flowers. (Consul Robertson Honey, Nice.)

Balsams Turn Easier

Balsams showed an easier tendency in the spot market during the past month. Peru in cases is offered at 85c per pound with a range to 90c for lesser quantities. The range for Tolu balsam was from 72c to 82c per pound.

More balsam tolu was imported in the first 10 months of 1932 than in the entire year 1931, or 42,733 pounds valued at $16,069 against 39,100 pounds worth $20,165. In the 10 month period of 1932, imports of balsam copaiba aggregated 88,625 pounds ($6,191); balsam Peru 45,226 pounds ($31,769); storax 17,681 pounds ($2,794); fir or Canada balsam 4,719 pounds ($2,325).

Bergamot Oil Down Sharply

The outstanding feature in the essential market during the past month was the sharp decline in bergamot oil. Prices as low as $1.25 per pound prevail, whereas a month ago the inside figure was $1.70.

Leading sellers, however, reject such prices when adhering to quality standards. The range in such quarters is from $1.40 to $2.00 per pound as to seller and quantity.

Although demand has been light, the weakness in the market is attributed to surplus supplies, mostly in the primary market. One quarter has advanced the opinion that carryover stocks abroad total about 1,500,000 pounds.

Following the order whereby the bergamot oil industry was again put on a free trade basis, the Official Gazette No. 280, of December 5, published a Royal Decree Law No. 1527, November 10, 1932, whereby the stock of bergamot oil held by the consortium for sale for the account of the producers, is declared to be the property of the consortium at the price of 7 lire per Calabrian pound (Same as Sicilian pound). This fixed price of 7 lire per pound represents one-half of the present market price for bergamot oil which is selling at around 14 lire per Sicilian pound. The advances already paid out to producers by the general bergamot warehouse against warehouse warrants will be reimbursed to the general warehouse by the consortium up to the amount of 7 lire per Calabrian pound. It is further provided that the bergamot oil will then be sold for what it will bring under guarantee that it will be used for other purposes than its normal use as a perfume material. The Ministry of Corporations has appropriated 5,000,000 lire to cover the cost to the consortium of taking over and disposing of the stock of bergamot oil. From the day of the publication of the decree in the Official Gazette, the consortium is prohibited from entering into any business transactions, except such transactions as are connected with the disposal of the stock of oil in question.

Trade Commissioner Elizabeth Humes, Rome reports in "World Trade Notes" that the experiment in monopolistic marketing of bergamot oil has proved a failure. In order that the accumulated stocks of 600,000 Sicilian pounds of oil of the Consortium shall not weigh on the market upon its liquidation and prejudice the sale of oil of the new crop, the stocks will be taken over by the Government and sold locally through the liquidation committee of the Consortium for purposes other than perfumery. It is stated that the oil of the Consortium so treated as to make its use as a perfume impossible, will be marketed chiefly for use in the manufacture of disinfectants and ship paints. Producers in late November were offering new crop oil for December-January delivery at from $1.60 to $1.65.

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Peppermint Oil Steady

The spot market for oil peppermint has stood up very well over the past month despite a seasonal lull in activity. Natural oil continues unchanged at from $1.85 to $1.95 per pound, with redistilled on the basis of from $2.05 to $2.15 per pound.

The spot market strength in this oil is in keeping with the primary position.

Assistant Trade Commissioner Kenneth M. Hill, Bucharest, reports that Rumanian peppermint cultivation covers about 450 acres, there being an annual production of peppermint oil approximating 6,300 kilos. The development of peppermint culture is of recent origin. In 1924, the German tooth paste and mouth wash factory Leo Werke A. G. of Dresden opened a branch factory at Ghimbau in the Department of Brasov. They found from experiments that they could produce sufficient oil of peppermint not only for their own use but also for the entire Rumanian market. Plants and seed, obtained from the United States, were distributed to the local farmers with instructions for cultivation. The factory agreed to buy up the entire crop and installed a modern steam distillation plant.

Peppermint oil is being produced in Poland on an experimental basis, to the extent of almost 15,000 pounds a year, it is claimed. While imports of this oil have declined, quantities are still being imported, receipts from the United States entering mainly through Holland.

Italy is reported to have exported 15,519 kilos of peppermint oil during 1931, of which France received 7,563 kilos, Germany 4,865, Great Britain 1,798, Switzerland 403, Argentina 272, Chile 304, and other countries 314.

Orange Oil Flat Price

The feature of the orange oil market relates to the flat rate established by the California producers. This relates to cold pressed at 85c per pound irrespective of quantity taken when shipments are made in original containers. A premium is asked for lots less than original 25 pound tins. Domestic distilled oil has also been sharply reduced with the inside figure at 48c per pound.

There are no new developments in the market for Italian and West Indian oil. Competition continues very keen in view of the hand to mouth nature of business. Although current prices are lowest in many years, there are no indications pointing toward an upturn in values.

Shipments of sweet orange oil from Italy during the period December 1931 to the end of September totaled 143,000 pounds, about 35 per cent. below last season's exports.

Exports of orange oil from Jamaica during the September quarter of 1932 totaled 1,560 gallons, all to the United States.

Lemon Oil Weaker

The lemon oil market is weak and competitive with lower quotations prevailing. A buyer's market prevailed during the past month.

A wider price range on Italian oil is noted with quotations ranging from 75c to $1.10 per pound. This left sufficient margin for the meeting of consumers views.

It is reported from Sicily that the production of lemon oil during the season now drawing to a close was from 55 per cent. to 60 per cent. below the 1930-31 output. Shipments up to the end of September totaled 780,000 pounds, or about 30 per cent. below those of the corresponding 10 months of the 1930-31 season. Despite last season's lower production, a fair sized stock of lemon oil still remains available because of the heavy carry-over last December. Earlier estimates of an abundant crop of lemons this season are confirmed and the export demand for the fresh fruit is unusually good.

A feature of the citrus oil market is the flat rate of 70c per pound established by the producers of California lemon oil. This rate applies irrespective of quantity taken when shipments are made in original containers. Where it is necessary to break up an original can lot a 5c per pound premium is asked.

Camphor Oil Competitive

Competition in camphor oil was sharp with the situation being aggravated by the drop in the exchange value of yen. Quotations remain unchanged on spot but reports indicate a buyer's market prevails. Camphor sass. in drums 10c per pound, white in drums 11c.

The camphor Monopoly Bureau is understood to have discovered certain processes, of a nature undisclosed, for improving the quality of camphor oil, known locally as Ho oil. The improved oil had not been placed on the market in mid-October, although samples had been sent out. Prices were expected to be somewhat higher than for Ho oil, which on October 15, was quoted at 23c per pound c.i.f. New York, current exchange. (Consul General Arthur Garrels, Tokyo.)

Citronella Being Abandoned

While admirable conditions are said to prevail for the cultivation of citronella and lemongrass in several sections of Gautemala, the industry has been practically abandoned of late. Total exports of essential oils amounted to 68,952 pounds valued at $27,000 in 1928, declining to 45,000 pounds worth $17,800 in 1929, and to 1,372 pounds worth $452 in 1931. During 1932, some 2,400 pounds of lemongrass oil were exported to the United States as a trial shipment.

Geranium Oil Range Widens

Trading in geranium oil is quiet with a wider range of prices prevailing. The better grades of oil, however, are commanding top prices.

Stock of geranium oil on hand in Reunion totaling 4,500 kilos September 30, were reduced by exports of 2,395 kilos by October 15. Prices c.i.f. Marseille on October 15 were 214 francs per kilo. The production of geranium oil between November, 1932, and October 1933, is estimated unofficially at 40,000 kilos.

In the first 10 months of 1932 geranium oil receipts gained to a total of 121,200 pounds, ($376,900), from 113,000 pounds ($334,000) in the corresponding period of 1931.

Bay Rum Demand Greater

Purchases of Puerto Rico bay rum by continental United States, which were well ahead in 1931 of the previous two years, have contracted considerably in the present year; at the same time the average price per gallon dropped from $2.71 to $2.35. Less of a decline has occurred in 1932 imports of bay rum from the Virgin Islands, the other major source of this toilet requisite.

	From Puerto Rico	
Year	*Gallons*	*Dollars*
1929	7,771	$18,424
1930	7,437	18,729
1931	7,897	21,444
1932 (9 mos.)	3,392	7,964
	From the Virgin Islands	
Year	*Pounds*	*Dollars*
1929	416,069	$37,233
1930	628,644	54,623
1931	496,002	41,779
1932 (9 mos.)	385,281	26,911

Oil Cananga Declines

Competition in the spot market resulted in lower quotations for oil cananga native. Prices now range from $1.60 to $1.75 per pound. Rectified, however, has not been affected by the trend and continues unchanged at from $2.05 to $2.20 per pound.

Replacement costs, however, are said to be firm, contrasting somewhat with the competitive character of the market here.

Bois de Rose Stronger

With small offerings of Bois de Rose from the primary market, this item continues in the strong trend that set in some time ago. Although demand locally is not very active, stocks are small and there is little or no competition in view of the replacement situation. Brazillian is quoted at from 95c to $1.10 per pound, with Cayenne at from $1.85 to $2.00.

Bay Oil Very Firm

Bay oil is firm on spot at from $1.50 to $1.65 per pound. Stocks in the primary market are light and production is said to have been less than normal. Local dealers are not over anxious to sell.

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Clove Oil Lower

Clove oil U. S. P. showed a decline during the past month to the basis of from 75c to 85c per pound. The raw material displayed an easier tone and an absence of normal demand tended to aggravate the competitive condition of the market.

Lime Oil Quiet

Business done in oil lime is conservative. Prices ranged somewhat wider as to quality offered and as to seller. Expressed oil is quoted at from $11.00 to $12.75 per pound and the distilled at from $6.75 to $7.25 per pound.

Spearmint Oil Steady

Trading in oil spearmint is irregular but the market, in sympathy with the current strength in peppermint, is holding up well. Prices range from 90c to $1.10 per pound.

Cosmetic Imports Off 50%

The Department of Commerce reports that imports into the United States of perfumery, toilet water, bath salts, cosmetics, creams and powders in the first 10 months of 1932 came to only $439,000, compared with $900,000 in the same 1931 period—a decline of about 50 per cent. Perfumes and toilet waters show the greatest drop, from $553,000 to $241,000. Cosmetics, powders and creams are down from $341,000 to $195,000. Bath salts, never a large import item, dropped from $6,400 to $2,700.

Cedar Leaf Oil Down

Some pressure to reduce stocks of cedar leaf oil is noted in the spot market with the resulting competition lowering quotations 5c per pound to the basis of from 60c to 65c, in tins. In drum lots these prices are shaded to as low as 55c.

Cedar Wood Oil Declines

Due to absence of demand, oil cedarwood is lower. Prices now range from 25c to 30c per pound. According to reports a few distress lots may be had at slightly lower than the above quotations.

Stramonium Leaves Stronger

Although spot stocks of stramonium leaves were found to be ample to meet the diminished consumer request this item is said to be in a strong statistical position as it was underproduced abroad due to low prevailing prices in the world markets. Quotations here ranged from 10c to 11c per pound and were without change during the past month. Consumers abroad are said to be paying more for this item than can be obtained in the United States so that shippers are not anxious to send goods to this country.

Psyllium Imports Still Higher

Psyllium seed continues to be influenced by the available supply and the smaller demand. Prices on French seed showed a decline of 1c per pound to the basis of from 9c to 12c. Indian seed continues unchanged at from 5c to 6½c per pound, the very low prices that have prevailed for some time.

During the first 10 months of 1932 the United States imported 4,052,600 pounds of psyllium seed valued at $367,000, as compared with 3,557,000 pounds worth $507,500 in the corresponding period of 1931. During the 1932 period France supplied 1,742,600 pounds ($237,000) while 1,874,200 pounds ($82,600) came from British India. Most of the remainder entered from Belgium.

Production of psyllium seed in Spain during 1932 is estimated at approximately 148,000 kilos compared with 66,000 kilos in 1931. Of the 1932 crop Andalucia contributed 125,000 kilos, Levante 14,000 kilos, and Mallorca 9,000 kilos.

Agar Agar Values Off

With demand for agar agar confined to small proportions the competitive factor has again undermined values with resulting lower prices on spot. Number 1 is officially quoted at from 50c to 52c per pound and number 2 at a range of from 45c to 47c per pound. Some shading from these levels is being done where firm business is in view.

Less agar agar was imported into the United States in 1932, with receipts for the first nine months aggregating 403,800 pounds valued at $162,500, as compared with 466,000 pounds valued at $298,500 in the similar 1931 period.

Ginseng Trade Smaller

Generally depressed trade, together with unsettled conditions in China, have tended to reduce appreciably the trade in ginseng between the United States and that country. Exports of ginseng from the United States during the first 10 months of 1932 amounted to 98,000 pounds valued at $572,000, compared with 175,000 pounds valued at $1,347,300 in the corresponding period of 1931.

Soap Bark Shaded

With demand for soap bark routine spot prices have been shaded fractionally. Cut bark is now 5½c to 6½c per pound and powdered in barrels at 9c with lesser quantities at 10c per pound.

Karaya Gum Demand Good

Karaya gum prices held steady during the past month and demand from certain quarters was reported as good. Prices ranged from 11c to 11½c per pound as to quantity taken. Importations during November totaled 221,665 pounds.

Manna Market Lower

With only jobbing business being done in manna the spot market was lower during the past month. Large flakes are quoted at from 40c to 45c per pound and small flakes range from 25c to 30c.

The manna ash forests of Sicily are reported to have developed satisfactorily in 1932, production of raw manna and mannite having increased rather consistently during the last few years. World consumption of these products appears to be increasing, but prices are low at present on account of a fairly substantial carryover of stocks from the previous year.

Total exports of manna from Sicily during the first eight months of 1932 amounted to 212,700 kilos valued at $146,600, as compared with 217,600 kilos valued at $175,100 in the corresponding period of 1931. Shipments of mannite totaled 49,200 kilos valued at $8,275 in the first eight months of 1932 against 94,000 kilos worth $16,750 in the similar 1931 period.

Spanish Saffron Easier

Due to a decline in demand for Spanish saffron the market during the past month has eased off from the high levels obtained during the advance of the previous period under review. Quotations now range from $10.50 to $11.00 per pound.

In a report on the saffron trade of Greek Macedonia, exporters estimate the area planted in 1932 at two-thirds larger than 1931. The quality of the current crop is said to be relatively superior owing to the dryness of the growing season. There was no carryover of the 1931 crop. The preponderance of saffron exported, or 445 kilos, went to France, while smaller quantities were shipped to Switzerland and the United States. The price of red saffron, the main variety shipped, averaged $7 to $8 per pound.

Gum Arabic Strengthens

In view of the weak condition that has prevailed in the gum arabic market for a long time, the recent strength displayed in the primary market was not generally expected. The shipment price has been advanced three shillings. The new crop of gum is coming in very slow undoubtedly due to the very low prevailing prices which made it unprofitable to collect. Two of the largest shippers are said to have withdrawn from the market. Carryover stocks in the primary, however, are reported to be exceptionally heavy.

The spot market has not as yet reflected this condition, amber sorts being generally quoted at from 6¼c to 6½c per pound. One leading factor here, however, stated that in view of recent cables from 7c to 7½c per pound would be the idea of prices in that quarter.

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Tragacanth Remains Weak

A further decline is noted in gum tragacanth. The competitive conditions that have prevailed for a long time continue unabaited with local dealers anxious to move material. The better grades of number 1 gum are freely offered at from 72c to 77c per pound. Number 2 is quoted at from 57c to 62c as to quantity with number 3 offered at from 47c to 52c per pound.

A report from the primary market states that although market conditions during the month of September were dull an encouraging revival set in during October which was continued during the course of the following month. The demand remains steady in spite of the fact that relatively large stocks were received from the interior, thus partly offsetting the benefits derived from the increasing demand. As a result of this condition, the increased stocks could not be readily disposed of and the prices dropped proportionately.

Exports during October and November were estimated at 275 sacks. Shipments from the interior during October and November amounted to 1,000 sacks, 25 per cent of which was of the 1931 crop and 75 per cent of which was of the 1932 crop.

Stocks on hand in the local market at the end of November were reported to be approximately 1,500 sacks, including 700 sacks of the 1931 crop and 800 sacks of the 1932 crop.

Chamomiles Remain Firm

Although only limited quantities of Hungarian chamomile flowers are changing hands in the spot market, the position is firm as to price, reflecting the continued high level of replacement costs. Quotations here are unchanged at from 14c to 15c per pound but it is the general opinion of dealers that higher prices would prevail on a more normal demand as the current spot market is too close to actual replacement costs.

Asafoetida Gum Lower

Asafoetida gum is lower in the spot market at from 16c to 17c per pound for lump with powdered at from 26c to 27c per pound. The movement was confined to jobbing requirements of a limited number of buyers.

Japan Wax Trend Mixed

The spot market for Japan wax during the past month failed to reflect conditions in the primary. An easier tendency is noted here in spite of the fact that the Japanese market is characterized as strong. Japanese demand is said to have been influenced by requirements of munition manufacturers.

Vanilla Beans Unchanged

The vanilla bean market is without new feature. Moderate quantities of beans are moving into consuming channels against unfilled orders but little new business of consequence is reported.

Prospects continue to favor a short crop of Mexican beans as previously stated. A reduction of from 40,000 to 50,000 pounds is expected. Some quarters are of the opinion that there is nothing in this situation to warrant the assumption that prices will be higher in the near future as carryover stocks are said to be ample to meet requirements of the consuming trade as now prevails. The low price of Bourbon beans will also act as a brake to the Mexican situation. Mexican whole beans range from $3.00 to $4.00 per pound.

French markets are well supplied with lower grading beans at prices from 75c per pound. High quality Bourbons were not oversupplied and prices remain unchanged at prices ranging up to $1.20 per pound.

Pyrethrum Demand Greater

Yugoslav trade circles, for the first time in several years, report a stronger demand for Dalmatian pyrethrum, now selling at 13 to 14 dinars per kilo. This, it is felt, is partly the result of the active measures undertaken by the Yugoslav Ministry of Commerce to modernize and control production, in sorting and packing methods and to otherwise standardize the grades of pyrethrum offered for sale. It appears, also, that American demand is somewhat livelier, following reported recent favorable scientific investigations of Yugoslav pyrethrum. (Assistant Trade Commissioner Edward G. Eichelberger, Belgrade.)

Carnauba Wax Stronger

Late cables from Brazil confirm the strong primary market position on carnauba wax. Spot quotations held very steady at from 22c to 23c per pound. In view of the fact that stocks here are small, leading importers feel that higher prices will prevail later on.

Gum Mastic Easier

With distribution of gum mastic being only fair in volume a desire to move stocks has resulted in slightly lower quotations during the past month. From 30c to 32c per pound is generally quoted.

Celery Seed Reacts

Celery seed failed to maintain recent advances and was reduced on the spot from 38c to 40c per pound. Pressure of moderate quantities released material indicated a need to liquidate.

Cinchona Imports Off

Imports into the United States of cinchona bark during the first 10 months of 1932 totaled 934,200 pounds valued at $288,100 as compared with 1,069,300 pounds valued at $289,600 in the corresponding period of 1931.

Quinine sulphate imports declined to a relatively greater extent, amounting to 436,500 pounds worth $144,000 in the current period against 1,160,100 pounds valued at $394,500 in the similar period of 1931.

Quinine sulphate on spot is firm at 40c per ounce and the market remains without special feature.

Nux Vomica Demand Spotty

Demand for nux vomica is spotty. With no increase in offerings, however, the market here is maintained at former levels. Buttons are from 5c to 6c per pound and the powdered at from 8c to 9c.

A relative decline in excess of 50 per cent has been experienced in the import trade which totaled during the first 6 months of 1932 878,500 pounds worth $20,000, against 1,795,700 pounds valued at $54,300 in the similar 1931 period. French Indo-China was the leading supplier of the aforementioned shipments followed by British India.

Ergot Imports

Imports of ergot into the United States during the first 10 months of 1932 amounted to 163,765 pounds valued at $19,857. Statistics indicate Spain as the source of 75,930 pounds ($22,746), Portugal 529 pounds ($243), Russia 37,574 pounds ($8,178), Germany 45,048 pounds ($17,138), Hungary 220 pounds ($127), Belgium 4,464 pounds ($1,425).

Elm Bark Shaded

Movement of elm bark is fairly good with prices steady and free from any competition of note. The price of powdered root has been adjusted, however, to the basis of from 13c to 16c per pound as to quantity.

Senna Leaves Competitive

Considerable competition has developed in senna with the result that current prices have been shaded somewhat. Alexandrian half leaf is down to from 8c to 10c per pound, with siftings offered at from 8½c to 9½c per pound.

Kamala Demand Small

With demand for kamala irregular and small, increased competition has been noticed. Locally the market range is from 18c to 22c per pound although it is noted that not all the sellers are meeting the inside figure.

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Abstracts

Protein Isocyanates

Phenyl isocyanate compounds of proteins are studied regarding immunological properties. Phenylureido-protein compounds were prepared and evidence suggests that phenyl isocyanate reacts with free amino groups of lysine molecules, and immunological reactions supports this view. Introduction of these groupings produces new antigenic specificity characteristic for all phenylureido-proteins. Thus antibodies to phenylureido-serum globulin react with phenylureido-casinogen and with phenylureidogelatin. Inhibition tests suggest that grouping in phenylureido-protein which determines new specificity is phenylureido-lysine. S. J. Hopkins and A. Wormall. Chemistry and Industry, 1932, page 981.

Testing Peru Balsam

Following are most suitable tests for adulterants in balsam peru. Sample is well shaken with petroleum ether and filtered liquid evaporated. No odor of turpentine or benzaldehyde should be noticed. Few drops of residue are dissolved in 10 cc. of acetic anhydride, and 2 drops of sufuric acid added. If no redish-violet or bluish-violet color is developed, Canada balsam, copaiba, rosin, storax and gurjin balsam are absent. To 4 drops of residue, 2 drops of nitric acid are added. If yellow color, but not green, blue or red, develops around zone of contact, balsam of tolu. Canada balsam, copaiba, rosin, gurjin balsam, storax, turpentine, castor oil and olive oil are absent. Four cc. of petroleum extract from first test are shaken with 10cc. of 0.1% solution of copper acetate. If petroleum ether layer is not colored green, rosin, copaiba and Canada balsam are absent. Solubility in 90% alcohol will assist in showing presence of certain artificial balsams. If 1 gram of balsam is shaken with solution of 3 grams of chloral hydrate in 2 cc. of water, absence of fatty oils is indicated if clear solution remains 15 minutes. E. M. Smelt. Pharmaceutical Journal, 1932, volume 129, pages 241ff.

Antiseptic Value of Menthols

Various isomers of menthol were examined to determine antiseptic value and toxicity. Natural laevo-menthol and 4 isomers, representing 3 types of isomers obtained up to present, were tested. Bactericidal action within 24 hours on cultures of bacillus coli and staphylococcus pyrogenes aureus was determined. Lethal doses, producing 50% mortality, were in mgm. per gram 1-menthol 3.4, dl-menthol 3.4, and dl-isomenthol 3.00. Relative germicidal activity on bacillus coli at surrounding temperature for ½ to 6 hours, based on 1-menthol were as follows:—d-menthol 145 to 154, dl-menthol 115 to 126, dl-isomenthol 90 to 100 and dl-neomenthol 166 to 171. L-menthol is 10 to 12 times as active as phenol. In case of staphylococcus pyrogens aureus, 1-menthol is 5 to 8 times as active as phenol. Increase of 10 degrees in temperature causes small increase in activity of phenol, but much greater increase in activity of menthols. Quarterly Journal of Pharmacy and Pharmacology, 1932.

Theobromine in Diuretin

Silver method is compared with iodine method. In first method diuretin is dissolved in caustic soda. After content of alkali has been determined by acidimetry and after excess of tenth normal silver nitrate has been added, quantity of sulfuric acid liberated is calculated by means of standardized solution of sodium hydroxide. One cc. of tenth normal sodium hydroxide solution corresponds to 18 mgm. of theobromine. In second method, diuretin is dissolved in acetic acid. There are added successively to solution of iodine (tenth normal), sodium chloride solution and dilute hydrochloric acid. Tetra-iodide of theobromine is separated. Excess iodine is determined by titration with tenth normal sodium thiosulfate. One cc. of solution corresponds to 4.5 mgm. theobromine. Silver method is more accurate than iodine method and in every instance is less affected by conditions. J. M. A. Hegland. Pharmaceutich Weekblad, September 24, 1932.

Tincture of Valerian

Diaphanometry is used in determining value of tinctura valerianae. Series of normal constants and coefficients were established with whose aid operating control can be properly exercised and most favorable method of making pharmaceutical product can be correctly chosen. New method prevents addition of corrective substances to poor extracts, because it detects their presence, which is not possible in making such determinations as specific gravity, content of extract, capillarity and like. Curve can be drawn for each extract or tincture which tells story in indubitable manner. C. Risch. Pharmazeutische Zeitung, 1932, volume 77, pages 638ff.

Chemical Vitamin Reaction in Cod Liver Oil

Value and limitations of chemical testing of cod liver oil to determine vitamin D content are discussed. Reaction with phosphorus pentoxide cannot be considered as typical vitamin reaction, but only as reaction on constituents of cod liver oil, for reaction with vigantol oil is not very different from that with olive oil and sesame oil. Substances added to cod liver oil to correct taste, interfere with reaction for vitamin D as in case of vitamin A. Wolfgang Brandrup Pharmazeutische Zeitung, 1932, volume 77, pages 728ff.

Evaluating Garlic Products

It is concluded from comparative coefficients obtained by analysis, that content of sulfur-containing compounds in final product depends very considerably on process used in working up garlic. Best product from standpoint of essentially, active ingredients is crude, non-filtered and unheated pressed juice. Filtration, digestion, and pasteurization diminish content of active, sulfur-containing substances in juice. Keeping qualities of crude pressed juice are enhanced when it is stored in capsules. A. Kuhn. Jahrbuch Dr. Madaus, Dresden, 1932, pages 41 to 43.

Pinus Longifolia Essence

Non-acid products of ozonization of carene from essence of pinus longifolia give semicarbazone, m. p. 210° to 211° C., of cyclic ketone corresponding with beta-carene (about 4% in head fractions), and mono- and di-semicarbazides of aldehydo-ketone from alpha-carene. Raman spectra of fractions of essence show presence of pinene, nopinene, and alpha- and beta-carenes, last in much less amount than alpha-carene. D. Dupont, and M. Joffre. Bulletin Inst. Pin., 1932, pages 142 to 144.

Pineneedle Extracts

Sulfite waste liquors have average sulfur and ash contents of 7.2 and 20.8% respectively. Corresponding figures for pine-needle extract are 0.65 and 7.3%. These figures may be used for detection of adulteration in pine-needle estract. C. A. Rojahn and H. Filss, Pharmazeutische Zeitung, 1932, volume 77, pages 829 to 833.

Lecithin From Soya Beans

In order to determine lecithin, ground material (1.5 to 2.0 grams) is extracted with alcohol in Soxhlet for 5 to 6 hours and then with alcohol for 3 to 4 hours. After partial evaporation of solvents, residue is treated with sulfuric acid and concentrated hydrogen peroxide in Kjedahl flask and phosphorus content determined colorimetrically. Lecithin contains 3.90% of phosphorus. Lecithin can be completely extracted with alcohol and benzene in ratio of 9 to 10. On distilling solvents, first up to 54.85° (alcohol, water and benzene) and then up to 68.25° (alcohol and benzene), alcoholic residue separates on cooling into 2 layers, lower containing oil and upper being alcoholic solution of lecithin and free fatty acids. Crude lecithin is purified by precipitation with acetone. Carbohydrate accompanying lecithin with alcohol and benzene extract in Bollmann's process is success. G. Eichgorn, A. Milski, and

(*Continued on page 78*)

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Dry Milling

(Continued from page 24)

It is an interesting speculation as to whether the pulverizer is not the mill of the future. The pulverizer has the ability to mill finely at very high speed. But nearly all of the several types of pulverizer now available have certain drawbacks. There can be no doubt that pulverizers of one kind or another have made headway at the expense of all other types of mill. They are easy to load, discharge and clean; they are continuous; they have an enormous daily capacity; they do an excellent milling job. There are several types of disintegrators or pulverizers now available: the hammer mill, the cage mill, the disc mill being the most common.

The hammer mill has hammers slung from a shaft passing horizontally through a bashing chamber. This shaft revolves at a speed of from three to eight thousand rpm., subjecting the material to terrific beating. Some of them have screens at the bottom, others are open. For most material the screen is required in order to keep the material in the bashing chamber until it has been reduced sufficiently. The disc mill consists, as its name implies, of ridged discs between which the material is pulverized. The cage mill consists of a pair of "squirrel" cages rotating in opposite directions within each other. The disc mills grind by attrition; the cage and hammer mills by impact. All types operate best with a feeder which delivers a uniform input. All develop a great amount of air, provision for exhausting which must be made in the receiving bin or system. The feed must be uniform. Irregular feeding will give poor results; forced feeding will choke the mill and force delivery of unmilled product. Sometimes if the feeder is not regulated properly the pulverizer will "kick back," that is the mill will throw the material back out of the hopper instead of pulling it into the bashing chamber. On the other hand if the mill is crowded it may build up a cake on the wall of the bashing chamber and this will gradually diminish the capacity of the mill and finally choke it altogether. Of the several types of pulverizers available, we prefer the cage mill because it produces an eminently fine product and possesses no interstices which are not easy to clean out and this is especially important in face powder milling.

Just how fine a product can be reduced by mechanical means remains yet to be determined. The finer the product the greater the percentage of variation. Ultimately there comes a point when material can be reduced no finer by mechanical action and it becomes necessary to separate the finest of the particles by means of air flotation, centrifugal force or levigation. However, the mere presence of a large percentage of impalpable fines of microscopic size in all well milled material proves that a considerable portion of the material actually is reduced by some unknown means, probably through loss of cohesion due to the destruction of cell structure, and it remains for us to devise a means for securing and controlling similar disintegration of the cell structure of all material. It may be that mills of the future will employ great pressure in the process of securing sudden particle disruption. Here is another interesting speculation.

Recent experiments which we have heard about but not seen, concern the adaptation of the colloid mill to dry milling. This, it would seem, places the colloid mill, insofar as dry milling is concerned, in the class of the pulverizers described above. An interesting test was made recently in which a material was put into suspension and ground through a colloid mill, after which it separated by means of a centrifuge. It was claimed that the milled product was finer than anything so far achieved by mechanical means. It seems to us that such a procedure, in addition to being expensive, would defeat its own purpose because the material, being wet after separation from the suspending medium, would naturally form agglomerates which would have to be broken up by milling over again.

What's New in Medicines

(Continued from page 64)

Stenopressin—Contains in 100 grams, 0.1 gram strophanthin, 1.5 gram lobelia inflata, 0.75 gram ethyl nitrite, 8.0 grams cannastrol (selected extract of cannabis indica), 2.0 grams peppermint oil. For angina pectoris, stenocardia, etc. Dose 20 to 25 drops three times daily. Efeka Neopharm. A.G., Hannover, Germany.

Tonaton—Contains active substances of cortex yohimbe, semen ignatii (St. Ignatius bean), specially active labiates, methylaminopropanol, ester oxytropanmethyl nitrate, sodium diphosphate. Sexual tonic. Liutpold Werk, Muenchen, Germany.

Veno Mitshekten—Contains active substances of hormone glands, posterior hypophysis, suprarenal gland, pancreas, parathyroid gland in combination with homeopathically digested vegetable extracts of cortex hamamelidis (witch hazel), fructus aesculi, hippocastani, rhizoma arnicae, herba pulsatillae, and also calcium fluoride. Specific tonic for internal treatment of haemorrhoides, venereal infections, bone swellings, varicose veins. Mitshekta Chemische Fharmazeutische Gesellschaft m.b.H., Berlin, Germany.

Complignon—Bacteria-free, gonococcus toxin, containing ectotoxin separated during life of gonococci, and also vital or life substance liberated on death. For gonorrhoeal complications and serodiagnosis of gonorrhoea. Schering-Kahlbaum A.G., Berlin, Germany.

Coona Kur—Two varieties. One contains boric acid, other agar-agar, aloin cascara sagrada, lactose. For obesity. Coona Chemische Pharmazeutische Praeparate, Berlin, Germany.

Duonettae No. 1—Contains herba farf., equiset., galeop., tener., scorod., hyp. i. pulv. subtil., calcium carbonate, calcium phosphate, calcium hypophosphite, sil. i. han. trit. For all inflammations. Dr. Willmar Schwabe, Leipzig.

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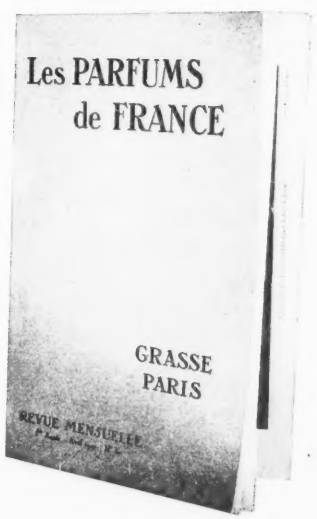

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ABSTRACTS

(*Continued from page 74*)

E. Kalashnikov. Masloboino Zhir. Delo, volume 11, pages 26 to 38.

Active Constituents of Ergot

Pure ergotamine and ergotixime were examined with ultra-violet light lamp. Similarity between absorption of rays suggested similar structure in both compounds. Similar behavior of spectra of ergotamine and tryamine, subjected to varying conditions, and fact that aqueous residue after extraction of alkaloids from old preparation of ergotamine with ether, showed spectrum like that of autoclave tryamine, indicated that two compounds produce same substance on decomposition. F. Schlemmer and H. Schmitt, Archiv der Pharmacie, 1932, volume 270, pages 15 to 29.

Acetylcholin Chloride Solutions

Acetylchloin chloride hydrolyzes in water with great ease and to considerable proportion. Cholin chloride is formed but this possesses only fraction of potency of original acetylcholin chloride. Hydrolysis cannot be prevented. On other hand injectable solutions cannot be obtained with fatty oils for acetylcholin chloride is insoluble therein. Organic compounds, containing free hydroxyl groups, such as alcohols, phenols, acids, etc., dissolve this substance. These solutions can be sterilized and will retain activity for long time. Mixtures of mono-acetin and diacetin can be used to obtain stable solutions of drug. L. Lematte and others. Journal de Pharmacie et de Chimie, volume 15, pages 49 to 60.

Dry Residue in Tinctures

Micropipette is used to measure out 0.5 cc. sample, which is run on to sheet of air-dried cellulose (25 x 40 mm.) in small platinum crucible. Whole is weighed on torsion balance. Crucible is heated at 105° C. for 10 minutes, then cooled for 30 minutes and weighed again to determine loss of moisture. Similar test made on piece of cellulose of same size. Good results are obtained by this method, comparing favorably with longer gravimetric method. Modification of this method for albumen and globulin in serums is given. A. Kuhn and R. Seifert. Pharmazeutische Zeitung, 1932, volume 77, pages 547 to 548.

Decomposition of Chloroform

New test is described for detecting decomposition of anaesthesia chloroform. Twenty mgm. of resorcinol and 20 mgm. of vanillin are added to 15 cc. of chloroform in 25 cc. dry flask. Flask is stoppered and when solution is complete, stands in dark for hour. Then 5 cc. of 1% ammonia is added. Mass is shaken and mixture separates into layers. When phosgene forms at first, hydrochloric acid is present and red color forms in aqueous layer. Color attains greatest intensity within 30 seconds and intensity varies in accordance with quantity of impurities. N. L. Allport. Quarterly Journal of Pharmacy and Pharmacology, 1932.

Essential Oil of White Pine

Complete study was made of essential oil of white pine. Physical and chemical constants were determined and terpenes and sesquiterpenes. Later were subjected to hydrogenation, ozonolysis, partial hydrogenation and oxidation. G. J. E. Hunter. Journal of Society of Chemical Industry, 1932, pages 394 to 397T.

Extract of Hydrastis

Author advises against use of dry and weakly concentrated extracts of hydrastis. Studies show that prolonged evaporation and dessication decreases hydrastine content in these preparations up to 20%. Hydrastine content does not remain constant. T. de Vries. Pharmaceutisch Weekblad, 1932, number 37.

Isoyohimbine

Isoyohimbine must be considered as isomer of yohimbine like alloyohimbine, corynanthine, alpha and gamma-yohimbine. Quebrachine is identical with yohimbine. Beta-yohimbine is mixture of yohimbine with another alkaloid not yet been identified. Georg Hahn and Fritz Just. Berichte, 1932, volume 65, No. 5.

Sapamines in Pharmacy

Sapamines have following formula:—R. $CONH.CH_2.CH_2.N.(X)$ (R_1) (R_2) (R_3). R is fatty acid radical, X is anion and R_1, R_2, and R_3 are alkyl radicals. These can be used in preparation of all sorts of emulsions, ointments and pills. Derivatives, stearyl-sapamine and oleylsapamine, are particularly well suited for pharmaceutical purposes. Hans Kaiser and Karl Eggensperger. Pharmazeutische Zeitung, 1932, number 69.

Tinctura Cocci

Cochineal is digested with phenyl ether in presence of water and ammonia to remove coloring matter. Tincture of better than 60% coloring matter content is obtained by maceration of degreased cochineal with 25% alcohol. When boiling hot water is poured over cochineal and latter macerated with alcohol, coloring power of tincture is not improved. J. Rae. Quarterly Journal of Pharmacy and Pharmacology, volume 4, 1932, pages 403 to 419.

Solution of Bismuth and Ammonium Citrate

Pharmaceutical solution of bismuth and ammonium citrate is stable only when it contains minimum of 0.1% and maximum of 0.5% of free ammonia. Method for determining both free and combined ammonia in solution of complex citrate is given. F. J. Todd. Quarterly Journal of Pharmacy and Paramacology, volume 4, 1932, pages 468 to 473.

Bismuth-Sodium Tartrate and Mixtures

Methods for testing bismuth-sodium tartrate and mixtures of acid bismuth compounds and pepsin are discussed. Properties of various bismuth-sodium tartrates of various origin are described. Processes are developed for production of products suitable for pharmaceutical purposes. Such product dissolves in water to give clear solution which does not flocculate on addition of acids. S. Webster-Jones and A. J. Jones. Quarterly Journal of Pharmacy and Pharmacology, volume 4, 1932, pages 369 to 372.

Changes in Citronellal

Systematic testing of citronellal during storage showed changes. Degree of change depends on oxygen in air, on light exposure and conditions of store room. Resulting figures are given in tabulated form. Constants for pure citronellal are determined to be density at 15° C. 0.4552, index of refraction at 20° C. 1.4456 and angle of rotation of light +10.60°. R. E. Meyer. Deutsche Parfuemerie Zeitung, volume 18, 1932, pages 24 to 25.

Colloidal Gold

When colloidal gold is precipitated, precipitate is pure gold. However colloidal solutions are stable only in presence of certain ions and exactly those that react with metal, namely chlorine, iodine and bromine. These ion play important role in causing solution of gold and are eliminated during flocculation. When solution is concentrated by electro-decantation, it is possible to establish composition of colloidal particles. Presence of hydrochloric acid and auro-chloric acid is detected in proportion of 2 to 1. M. Pauli. Journal de Pharmacie de Belgique, 1932.

Iodo-Bismuthates

Iodo-bismuthates of antipyrine, amidopyrine and hexamethylenetetramine are discussed. Bismuth medication in treatment of syphilis consists on one hand of qualified products insoluble in water such as hydroxide, oxychloride of bismuth, iodobismuthate of quinine and of qualified products soluble in water, such as tartrobismuthate of potassium and sodium, colloidal bismuth, or soluble in oil such as bismuth cacodylate. Iodobismuthate of quinine is compared with little known or unknown bismuthates of certain synthetic nitrogenous bases, such as antipyrine, amidopyrine, and hexamethylenetetramine. Process is described for preparation of these bismuthates and method for determining exact bismuth content. M. Dolique. Bulletin des Sciences Pharmacologiques, July 1932.

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Viosterol D

Antirachitic activity (equal to 0.02 or more of that production by ultra-violet rays) is developed in ergosterol solutions on irradiation with direct or diffuse sunlight at 3,450 meters and also at much lower altitudes. Although absorption decreases continuously as irradiation continues, no relation between former and vitamin D production can be traced. A. Jendrassik. Biochemische Zeitschrift, 1932, volume 252, pages 205 to 211.

Extract of Condurango

Author establishes loss of condurango in making fluid extract and also changes taking place. Mixture of one part alcohol and 3 parts water is recommended as extraction medium for best results. First percolate is set aside and represents 65% of weight of drug. Second percolate is evaporated to dryness and residue macerated for 5 days with mixture of first percolate and 28% alcohol on weight of drug. After filtration, weight of filtrate is brought to weight of original drug by addition of mixture of equal parts of alcohol and water. Proportion of alcohol in finished extract should be 43.6 to 44.3%. This concentration of alcohol is able to keep conduragin in solution. Total amount of condurangin present in original drug will then be found in fluid extract. This is about 53.2%. Haerstroem. Farm Revy, volume 30, pages 577ff.

Analyzing Drugs

New luminescence comparator has been developed for recognition of drugs, tinctures, extracts and other technical products. Luminescence analysis is combined with capillary analysis. New apparatus permits measurement of color observed on solid substances in ordinary light, color of liquids in refracted light, measurement of color of luminescence under quartz lamp. It is used for measurement and determination of luminescent phenomena observed by action of ultra-violet light. New coefficients are established by means of this instrument for drugs, tinctures, extracts and like which aid in identification and evaluation. Results can also be used to control manufacturing operations by using color of product to determine when it contains proper concentration of active pharmaceutical ingredient. C. A. Rojahn Chemiker Zeitung, 1932, pages 812 to 813.

New Coefficients for Drugs

Most drugs are well defined botanically, but this affords no information on content of active principle. Chemical methods are lacking for large number. New method is proposed for quantitative determination of reducing power of drug with respect to Fehling's solution before and after treatment with hydrochloric acid. Two copper numbers are obtained. Quotient of these gives factor characteristic for each drug. Other coefficients are obtained from determination of volatile, nitrogen compounds in drug, after latter is treated with lye. Total nitrogen content is determined. It may be possible to obtain idea of value of drug by comparing copper numbers and nitrogen numbers. This also applies to galenicals. J. A. Mueller, Chemiker Zeitung, 1932, page 813.

New Cholin Esters

An example is carbamylcholine chloride or lentine. This substance acts on blood pressure, intestine, digestive glands. It is 1,000 times as powerful as acetylcholin in action on blood pressure, while in action on isolated small intestine both two substances are approximately equal. In contrast to acetylcholin, new compound, when injected intravenously, results in contraction of intestine. It excites salivation, approaches histamine in promotion of flow of gastric juice, does not influence excretion of bile, and unlike cholin or acetylcholin, it is stable in body. H. Noell. Arch. Exp. Path. Pharm., 1932, volume 167, pages 158 to 170.

Lysolecithin

This powerful, haemolytic substance is formed when egg yolk lecithin is digested with pancreas extract. Is identical with substance obtained by action of snake venom on lecithin. Z. Nikuni. Proc. Imp. Acad. Tokyo, 1932, volume 8, 300-3.

(*Continued on page 82*)

Patents

UNITED STATES PATENTS

Hormones

Process for recovery of highly purified hormone of anterior lobe of pituitary and other parts of body. Thus five liters of urine of pregnant animals are concentrated to one liter and slightly acidified with acetic acid and filtered. Concentrated barium chloride solution is added to filtrate, to no precipitate. Solution is mixed with 3 volumes of methanol. White precipitate contains hormone. Hormone can also be recovered from comminuted placenta and anterior lobe of pituitary. Schering-Kahlbaum A. G., Berlin, Germany. U. S. P. No. 1,868,095, filed June 10, 1929.

Mercury Drugs

New pharmaceuticals are mercury derivatives of halogenated fluorescein. They vary in physiological properties according to nature, position and number of halogen atoms in molecule. Five classes of compounds are distinguished between. Three processes of mercuriation are described. Hynson, Westcott and Dunning Inc., Baltimore. U. S. P. No. 1,860,003, filed November 18, 1925.

Shaving Preparation

Lather-less shaving preparation is made from mucilaginous aqueous liquid, containing those constituents of flaxseed soluble in boiling water. Liquid linseed is boiled in water. Mucilaginous base is mixed with small quantity of sodium hydroxide or ammonia or both to provide alkali in preparation, so grease and oil on beard are saponified and hair rendered better penetrable by mucilaginous shaving product and water. Alkali in linseed slime aids in preserving it. John McIntyre, Portobello, Scotland. U. S. P. No. 1,868,838, filed June 16, 1930.

Medicated Ointment

Principal ingredient is phenylphenol, preferably ortho-phenylphenol in oleaginous and water-free base. Medicaments are organic and water-insoluble. Phenylphenol increases penetrability and does not cause secondary irritation, and is germicidal. Ten per cent. may be used, but effective results are obtained with 3 to 5%. Henry C. Fuller, Washington, D. C. U. S. P. No. 1,870,107, filed February 21, 1930.

Shaving Aid

Hair is prepared for shaving alkaline solution containing ½ to 1% of hydrolyzable alkali metal salt of group consisting of sodium and potassium borate and carbonate. Principle is that sodium carbonate, for example, hydrolyzes to form sodium hydroxide which saponifies oil surrounding hair and makes it better able to absorb water and soften. Walter C. Gatton, Seattle, Wash. U. S. P. No. 1,869,057, filed March 6, 1929.

Antitubercular Drugs

Gold compounds of cystine are effective in destroying tubercule bacillus. They can be administered by injection and have no secondary reaction. They lower body temperature and reduce coughing and expectoration and increase appetite. Cystine, one molecular weight, is suspended in water and two molecular weights of normal solution of sodium hydroxide or other caustic alkali are added to form sodium salt. Twelve molecular weight of normal sodium hydroxide solution are added to cystine solution to neutralize chlorine in gold chloride reagent. Mixture is poured into four molecular weights of gold chloride solution. Transparent, reddish brown liquor is formed which is precipitated by alcohol to form yellowish brown stringy precipitate which is filtered, dried and pulverized. Kuni Yoshioka, Minami Ku, Osaka, Japan. U. S. P. No. 1,869,831, filed March 12, 1928.

Alkaloidal Salts

Process is to reduce solubility in water of various organic bases having therapeutic action to diminish bitter taste, and secure other advantages. Bases are caused to react with methylene compound of acid of group consisting of aromatic sulfonic and carboxylic acids. Bases include aminoquinolin, quinine, strychnine, etc. Stable compounds are obtained. Winthrop Chemical Co., Inc., New York. U. S. P. No. 1,872,826, filed, July 7, 1928.

Liver Drugs

Blood pressure reducing products are obtained from liver. Ground liver is extracted with alcohol made slightly acid to litmus with hydrochloric acid. Mixture stands in refrigerator over night and is filtered. Precipitate is treated with varying quantities of different concentrations of alcohol. Final residue is purified by successive treatment with water nonmiscible solvents, such as ether, chloroform, amyl alcohol, lead acetate, and sulfuretted hydrogen. Eli Lilly and Co., Indianapolis. U. S. P. No. 1,872,775, filed April 10, 1926.

New Aromatics

These are aldehydes of cyclohexane series. General formula for these compounds is $R.CH_2.CH(Alkyl).CH:O$. R stands for cyclohexane nucleus or 1:1:3-methylated cyclohexyl radical. These compounds are in pure state colorless oils of an agreeable bitter odor resembling nuts and leaves. One such compound is 4(2:2:6-trimethylcyclohexyl)-2-methylbutanal and it is used in making floral oil in admixture with hydroxycitronellal, benzyl alcohol, benzyl acetate, phenylethyl alcohol, cinnamic alcohol and ylang-ylang oil. Winthrop Chemical Co., New York. U. S. P. No. 1,873,430, filed June 5, 1930.

Complex Metallic Pharmaceuticals

Aqueous solutions of alkali metal salts of complex compounds of therapeutically active heavy metal of group consisting of antimony, arsenic manganese and bismuth with polyhydroxybenzene, containing three added groups as well as two hydroxyl groups. Added groups are one hydrogen or hydroxyl group, two acid substituent of group consisting of carboxylic and sulfonic acid groups, and three hydrogen or sulfonic acid group. Solutions are characterized by pH of 6.5 to 7.5 and by small content of alkali metal and ammonium sulfites, bisulfites, metabisulfites and acetone-bisulfites. These solutions are stable when filled in closed vessels and show no discoloration even when sterilized by heat. Winthrop Chemical Co., New York. U. S. P. No. 1,873,668, filed April 13, 1931.

Phenyl-Mercury Acetate

New pharmaceutical, phenyl-mercury acetate is made by heating mercuric oxide with benzene and glacial acetic acid at 60° C. for several hours. Winthrop Chemical Co., New York. U. S. P. No. 1,879,206, filed October 21, 1929.

BRITISH PATENTS

Pyridine Pharmaceuticals

Double compounds of pyridine-carboxylic derivatives with water-soluble salts of alkaline earth metals, such compounds possessing therapeutic value, are obtained by mixing alcoholic solutions of constituents. Examples are compounds from calcium chloride with nicotinic acid, acid chloride, ethyl ester, diethylamide, picolinic acid, 2-hydroxynicotinic acid; from nicotinic diethylamide with calcium sulfocyanide, calcium bromide, calcium iodide, calcium salicylate, magnesium chloride, strontium chloride; calcium sulfocyandie with nicotinic methyl-normal-propylamide, picolinic diethylamide, ethyl collidine-3:5-dicarboxylate, 2-chloronicotinic diethylamide and calcium picolinate. Society of Chemical Industry in Basle, Basel, Switzerland. B. P. No. 377,132, filed March 5, 1932.

Skin Powders

Dusting powders possessing hygienic action, are made with one or more amylolytic or proteolytic enzymes in salt soluble in water. These salts are for example sodium benzoate, sodium chloride,

sodium perborate. Albumen may also be used. These ingredients are mixed with such as starch, talc or zinc oxide. E. Donath, Czechoslovakia. B. P. No. 378,888, filed April 11, 1931.

Production of Foams

Two salve-like materials, both of which may be mixed with gum tragacanth, agar-agar, or similar base, also contain disinfectant, medicinal or other active substance. One of these salve-like materials is an acid or acid-reacting salt, for example tartaric acid, hydroxylamine, hydrochloric acid, ammonium chloride. The other is substance which liberates gas, such as sodium bicarbonate, sodium sulfide, sodium nitrite. Both components are kept separate until ready for use. Both contain necessary proportion of water to form foam without external liquid. A. Karreth. B. P. No. 379,892, filed October 9, 1931.

Blood Sugar Therapeutics

These are polymethylenediguanidine compounds. They reduce sugar of blood without ill effects of guanidine salts. They are non-toxic and stable in stomach, being assimilated in small intestine. They are made by melting deca- or other polymethylene-diamine with guanidine thiocyanate at 130° to 160° C. Products are precipitated from alcohol by potassium carbonate and converted into tartrates, phosphates or citrates. Anticoman Gesellschaft m.b.H. B. P. No. 376,806, filed April 7, 1931.

Drugs for Injection

Neutral solutions of complex metallic compounds suitable for injection are made so that discoloration is prevented when solutions are sterilized. This process is carried out at pH of 6.5 to 7.5. Discoloration is prevented or minimized by incorporation of sulfites, for example sodium metabisulfite. Latter is used in 0.1% concentration with complex metal salts of aromatic polyhydroxy compounds, for example sodium antimonyl-pryocatechol-disulfonate and sodium antimonyl-protocatechuate. It is also useful for solutions of bismuthyl and manganese salts. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. B. P. No. 376,346, filed April 9, 1931.

Drugs from Placenta

Placenta is first treated with organic fat solvents to separate physiologically active substances. Residue is hydrolized. Active substances, including precocious sexual maturity, are isolated from reaction mixture. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. B. P. No. 378,647, filed August 19, 1931.

Therapeutic Products

Anaesthetic and amoebicidal products are obtained by introducing basic groups (aminoalkyl) into amino groups of ethers or thioethers of aromatic, alicyclic, heterocyclic, or aromatic-heterocyclic series. Secondary and tertiary bases are obtained by action of beta-diethylaminoethyl chloride on 4-aminodiphenyl ether. Numerous products are mentioned. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. B. P. No. 373,624, filed November 20, 1930.

Santonin Substitutes

These are gamma-lactones of decahydronaphthalene, cyclohexane and its homologues. Methyl-alpha-(2-hydroxy-2-decahydronaphthyl)-propionate, b. p. 128° C/0.6 mm., from beta-ketone, zinc and methyl alpha-bromopropionate, is dehydrated, for example by slow distillation with potassium bisulfate. Unsaturated ester, b. p. 143° C/13 mm., is converted by 70% sulfuric acid into the gamma-lactone, b. p. 145° C/0.6 mm. (hydroxy acid, b. p. 153° C/0.9 mm.) Same lactone is obtained directly from hydroxy ester and 70% sulfuric acid. C. H. Boehringer Sohn A. G. Berlin, Germany. B. P. No. 378,095, filed May 8, 1931.

Papaverine Substitutes

6:7-Dialkoxy or methylenedioxy-3-methylisoquinolines, carrying 1-aryl or heterocyclic group in place of benzyl group of papaverone, are synthesized by Pictet-Decker method, followed by dehydrogenation. Various derivatives are described. E. Merck. B. P. No. 374,627, filed June 8, 1931.

Therapeutically Active Compounds

Compounds containing a basic residue comprising a cyclic nitrogen radical connected by an aliphatic or alicyclic bridge to nitrogen atom of decahydrocarbazole are synthesized. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. B. P. No. 377,255, filed April 14, 1931.

Organic Bismuth Compounds

Unsaturated $C_9H_{14}O_2$, b. p. 120° to 125° C/1 mm. (methyl ester, b. p. 70° C/4mm. or its dihydro-derivative, or oil containing either, obtained as by-product in oxidation of borneol, isoborneol, fenchyl alcohol, etc. to camphor with chromium trioxide in benzene, is converted into bismuth salt by bismuth trichloride preferably with glycerin to sodium carbonate neutral solution of acid or oil. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. B. P. No. 374,818, filed March 21, 1932.

Specific Antigens or Vaccines

Micro-organisms are cultivated in or on culture media, for example animal or human body fluids of same species and at same temperature as those from which micro-organisms were obtained. This supplies specific biochemical material similar to that provided for micro-organisms in vivo and under similar conditions, thus enabling organisms to reproduce and retain in vitro characteristics and antigenic properties similar to those they possess in vivo, these being necessary for therapeutic immunization. Culture so obtained may be re-inoculated on similar medium. Final cultures are emulsified with sterile, oxygen-free water or normal saline, without or with antiseptics, and sealed in ampoules, which are then kept until all the micro-organisms are dead. Culture of bovine, human, and mixed tubercule micro-organisms is specified. H. Spahlinger B. P. No. 381,055, filed January 28, 1932.

Cod Liver Oil

Chopped cod livers are digested at 80° to 90° C. for 20 minutes with 2% caustic. Oily layer is separated by settling or centrifuging, and heated with small amounts of alcohol and sodium chloride or sodium sulfate, etc., to break emulsion. High yield of oil with undestroyed vitamins is recovered. Process is applicable to livers, or boiled-out liver residues, of low oil content. K. Kawai. B. P. No. 381,342, filed October 11, 1931.

Colloidal Carbohydrate

One part of sucrose is gradually dissolved in concentrated sulfuric acid (1.5 parts) below 5° C. without formation of humus products. After about 24 hours, solution is poured into water, acid removed as calcium sulfate and filtrate, after treatment with activated charcoal, evaporated. Product is colorless, tasteless, colloidal substance, which improves flavor of foods and has cosmetic and medicinal applications. T. Miyaguchi and M. Fukui, Tokyo, Japan. B. P. No. 376,533, filed August 26, 1931.

GERMAN PATENTS

Barbituric Acid Preparations

CC-disubstituted barbituric acids are brought into contact with dimethylaminophenazone in aqueous solutions. These solutions contain unsubstituted fatty acid amides or substituted ureas. Products are suitable for injection. J. D. Riedel E. de Haen A. G., Berlin-Britz, Germany. G. P. No. 551,083, filed December 4, 1925.

Acetoneglycerinaldehyde

Vapors of acetone-glycerin are conducted over dehydrogenating catalysts to form tone-glycerinaldehyde suitable for pharmaceuticals. Schering-Kahlbaum A. G., Berlin, Germany. G. P. No. 551,120, filed February 24, 1929.

Pyridine Pharmaceuticals

Compounds, containing pyridine nucleus, whose nitrogen is substituted by hydrogen, or 2- or 4-oxypyridine nuclei-containing compounds or their substitution products are converted into aminoalylated derivatives. Compounds containing pyridine nucleus with free 2- or

(*Continued on page 95*)

ABSTRACTS

(*Continued from page 79*)

Alkoxy Acridium Pharmaceuticals

Alkali metal salt of hydroxy-acridine compound is heated with alkylating agent in amount sufficient for alkylating hydroxy groups and nitrogen atom. Thus 3.4 parts of 3:6-dihydroxyacridine are introduced into mixture of 1.8 parts of potassium hydroxide and one part of water while warming. Temperature is increased to 120° C. and 9 parts of paratoluenesulfonic acid methyl ester are carefully added. After violent action has subsided, 6 parts of sodium chloride are added and mass carefully diluted with 30 parts of water. After stirring for 3 hours, brown solution is cooled and stood in crystallizer. Reaction product is dark brown substance. It is filtered. Filtrate is precipitated further with sodium chloride. Filtered precipitate is purified by dissolving in water and addition of animal charcoal. It is 3:6-dimethoxy-10-methylacridium chloride. Winthrop Chemical Co., New York. U. S. P. No. 1,863,647, filed March 6, 1928.

Alkaloids of Peganum Harmala

Four grams of powdered root are refluxed for 1 hour with 80% acetic acid (4 grams are used) and 95% ethyl alcohol to 120 grams. Mixture is concentrated to 24 grams and 20 gram aliquot part is left over night with ten cc. of 15% sodium hydroxide solution. Precipitate is washed, dried at 60° to 70° C. and extracted with chloroform. Residue on evaporation is dried at 60° to 70° C. This method may be used for analysis of tinctures. S. M. Bolotnikov, Farm. 1931, 362.

Peperina

Air (shadow)—dried drug, bystropogon mollis Kth., contains 11.2% water, 5.71% ash (silicon, potassium, sodium, iron, aluminum, manganese, magnesium, phosphorus, carbon dioxide), pectins 3.46%, 6.59% extractable coloring matter, 7.72% soluble protein, 11.93% total protein, 37.79% insoluble matter. Light petroleum extracts 3.97% of fat, wax and coloring matter. Ethyl alcohol extracts 2.56% of soft aromatic substance. Essential oil (4.5%) has density of 0.9108 at 15° C., m. p. —24.2° C. and b. p. 204° C. It contains 46.6% total menthol, 43.0% free menthol and 5.4% menthone. P. J. Preioni. Rev. Farm., volume 74, pages 173-183.

Formoson Eucalyptus Oil

This oil remains unchanged when 2 cc. are treated with 5 cc. of 2% solution (by volume) of bromine in acetic acid. Genuine oil distilled from eucalyptus produces a purple color in crude state and pale green to brown color in rectified state. Two samples of Formosan oil had density at 15°C. of 0.9220-0.9224, and angle of rotation +3.7 to +4.7°, index of refraction 1.4606 or 1.4617, congealing point –8 to –10.5°C. and contained 72 to 85% of cineol. One sample contained an appreciable amount of safrol. A. R. Penfold. Perfumery & Essential Oil Record, volume 22. page 402.

Better Tasting Medicaments

The medicament is mixed with unfermented grape which must have been evaporated under a vacuum. A. Leitner, Jaszbereny, Hungary. Hungarian Patent No. 87,693, filed August 1, 1924.

Aqueous Cholesterin Solutions

Solutions of cholesterin in small amount, of halogenated hydrocarbon are mixed with one or more mono-valent alcohols diluted with water. First solution becomes turbid, but aqueous alcohols are added in sufficient quantity to produce clear solution. Fredrich Passek, Hamburg, Germany. G. P. No. 523,144, filed September 11, 1927.

Highly Active Extracts

Highly active extracts are made from female inner-secretory organs. Fresh organs are mixed with water-combining agents and inert cooling agents and solidified mass is pulverized. Powder is extracted with organic solvents and extract is purified in usual manner. Gesellschaft fuer Chemische Industrie in Basel, Switzerland. G. P. No. 545,973, filed February 27, 1927.

Evaluation of Ergot

Twenty-five grams of powdered drug are shaken for one hour with 120 grams of chloroform; 60 grams of clear chloroform solution are evaporated and residue, dissolved in 15 ccm. of ether, is filtered into 25 ccm. cylinder graduated in 1-16ths. ccm. Filtrate and washings are made up to 24 ccm. and one cc. of 5% solution of picric acid in benzene is added. Liquids are carefully mixed, set aside for 24 hours and height of precipitate measured. Color of precipitate varies from yellow (fresh) to dirty green (old) according to age of ergot, and volume of precipitate is directly proportional to alkaloidal content. W. Kuessner and P. Wolff, Pharmazeutische Zeitung, volume 77, 1932, pages 342 to 343.

Chaulmoogra Oil

Chemistry of various carboxylic acids contained in oil is discussed. Author also describes results obtained with this oil in experiments carried out on tubercular guinea pigs. Results were favorable. Erik Ohlsson. Svensk Kem. Tidskr., volume 44, pages 121 to 129, 1932.

Analysis of Belladonna

Effect of inert powders on determination of alkaloid in belladonna extract has been studied. These powders often cause low results, particularly licorice powder. Following modified method overcomes difficulty. Three to five grams of dry belladonna extract are treated on water bath with 10 to 15 cc. of water. After cooling, 150 grams of ether are added, then mixture is vigorously agitated and 5 cc. of 10% ammonia added. After 15 minutes one gram of gum tragacanth is added and mixture agitated. One hundred grams of ether solution are filtered through cotton wool into Erlenmeyer flask. Ether is distilled dryness. Five cc. of ether are added three times to residue and each time ether is evaporated to dryness. Residue is dissolved in 15 cc. of freshly distilled ether and solution removed to separatory funnel. Erlenmeyer flask is rinsed with 5 cc. ether and liquid in decanting funnel agitated for 2 to 3 minutes with 30 cc. hydrochloric acid (1/100 normal). Liquid is filtered into standardized 100 c. flask and aliquot portion removed for titration with one hundredth normal borax solution with methyl red as indicator. J. Perelmann, Pharm. Zentralhalle, 1932, volume 73, number 10.

Detecting Antipyrine in Amidopyrine

Antipyrine is detected in amidopyrine nitric acid containing some nitrous compounds. The amidopyrine is dissolved and placed in small measuring glass. Nitric acid reagent is added to bottom of glass with pipette. If amidopyrine is present alone an annular violet zone is formed at point of contact of two solutions. Presence of antipyrine is indicated by yellowing brown zone below violet zone. Pierre Duquenois, Journal de Pharmacie et de Chimie, July 1, 1932.

Aconite Analysis

Attention is called to necessity for carrying out physiological analysis of preparations containing aconite. Chemical method depends on precipitation of alkaloidal bases extracted with ether after conversion of their alkaline compound. Precipitation is effected with silicotungstic acid. Method is excellent technically, but does not afford an accurate idea of therapeutic value of preparation in that case where aconitine is alone present in aconite composition. There are two alkaloidal bases present in addition to aconitine, namely picroaconitine and aconine. These exist normally in plant in very small proportions, but they are formed during processing of plant and aconite preparations. Only sure way to determine true therapeutic value of aconite preparation is to test same on guinea pig, determining quantity of drug required to kill animal. Goris. Bulletin des Sciences Pharmacologiques.

Emulsifying Process

Water-in-oil emulsion is chosen to convert very bitter-tasting powder into product more pleasant to taste. Powder is dissolved in dispersed drops of water, is surrounded by emulsificant and enclosed by gel mass. Example is 10 parts castor oil, 0.15 parts rivanol, 10 parts calcium carbonate, 15 parts white sugar and 84.85 parts honey. Rivanol may be dissolved in 5 parts lime water and shaken until fine suspension is obtained. One part of castor oil is worked to emulsion with lime water by rubbing in mortar and then mixed with honey and egg yellow. Then calcium carbonate and sugar are added. Balance of honey is admixed. N. David. Pharmazeutische Zeitung, volume 77, 1932, pages 1099ff.

Germ-Free Drugs

Oligodynamic action of small quantities of metals, such as silver, in aqueous solution, such as are formed by keeping water in silver vessels, is recommended for preparation of solutions free from germs or containing very little bacteria. Mercuric chloride may also be used. H. Moser. Apotheker Zeitung, 1932, volume 47, page 1341.

Extractum Fluidum Senegae

Saponins, polygalasic acid and senegin are active ingredients of drug. They are soluble in water and in little alcohol, while decomposed sapogenins are insoluble in in water. Latter are also therapeutic agents. Hence fluid extracts are purified by different methods, for example by extraction with cold water and warm water as well as by mixture of alcohol and water. Experiment conducted to determine decomposition of enzyme of drug at 75° C. was not successful. Splitting action of enzyme in finished senega preparation can be counteracted in following manner. One kg. of coarse senega root powder is boiled with 2.5 kgs. of alcohol for ½ hour. Dry preparation has index number of 3590, corresponding to 98.9% of index number of drug itself. Preparation, after filtering, can be mixed with water in proportion of 1 to 9 to give clear solution. Schonsen. Farm. Tidende, volume 41, pages 1062ff.

Sirupus Ferri Chlorati

Preparation free from ferric iron is obtained in following manner:—1000 grams of liquor ferri sesquichlorati and 65 grams of powdered iron react according to equation:— $2FeCl_3 + Fe = 3FeCl_2$. At close of reaction, solution is filtered and 10 grams of citric acid powder are dissolved; 1000 grams of syrup are prepared from 100 grams of solution, which are mixed with 600 grams of sugar and sufficient water. Only sugar is slightly heated and carefully stirred until liquid syrup contains 1.47% iron. E. V. Christensen. Archiv. Pharmc. og Chem., volume 39, 1932, pages 130 to 132,

Oenanthol

This product, obtained with undecylenic acid by distillation of castor oil under vacuum, is used as starting point in preparation of methylheptine carbonate. Synthesis takes place by first reacting phosphorus pentachloride with aldehyde to obtain oenanthylidene chloride, which react with potash to give heptine, which is then reacted with sodium and carbon dioxide and acidified and treated with methyl alcohol to give perfume. Albert Hutin. Revue de la Parfumerie, 1932, pages 162 to 163.

Lemon Oil

Method is described for detection of false "sponged" lemon oil prepared from machine-extracted oil. Fifteen samples of lemon oil extracted by sponge method were found to contain 3.63 to 4.5% of citral and left 2.07 to 2.88% of residue (stearoptene) when evaporated. Fifteen samples extracted mechanically gave 2.08 to 3.72% of citral and 4.45 to 7.29% of residue. Machined oil is almost entirely distilled in vacuum, giving, as secondary products, terpenes and stearoptene which are then used for preparation of imitations of sponged essence. True and imitation sponged essences cannot be detected by density, angle of rotation of light, content of citral, esters, or residue, or any other ordinary characteristic, but if residue is dissolved in 10 times its weight of lemon terpene, solution is clear for mechanically extracted oil and turbid, even after filtration, for true sponged essence. Also difference between index of refraction at 20° C. of original essence and terpene solution is 0.0049 to 0.0060 for sponged and 0.0024 to 0.0035 for machine essence. G. Romeo, N. Galletti and J. Amoroso. Giornale Chimica Industriala Applicata, 1932, volume 14, pages 397 to 400.

Curcuma Domestica

Composition of essential oil obtained from this root, which is useful in gall troubles, has been established. Root contains 3.5% of oil. It also contains coloring matter and probably small quantities of glucoside. Essential oil consists principally of laevo-cycloisoprene-myrcene and small amounts of camphor along with coloring matter, curcurmin. H. Dieterle. Chemiker Zeitung, 1932, page 813.

Peganum Harmala Alkaloids

Four grams of powdered root are refluxed for 1 hour with 80% acetic acid. Four grams are used; also 120 grams of alcohol. Mixture is concentrated to 24 grams and 20 gram aliquot portion is left over night with 10 cc. of 15% sodium hydroxide solution. Precipitate is washed, dried at 60° to 70° C. and extracted with chloroform. Residue is dried at 60° to 70° C. This method may be employed in analyzing tinctures. S. M. Bolotnikov. Farm., 1932, page 362.

Heat Absorption and Essential Oils

Exception is taken to soundness of Tyndall's principle that essential oils in plant supply screen of heat-absorbing vapor which keeps plant cool. Water is present in large quantities in many oils and this may account for absorption of radiant heat noticed by Tyndall. No experimental support was obtained for the idea that vapor of essential oils and similar odorous substances appreciably absorbs radiant heat from source at 100°. On basis of water content, oils may be divided into 2 broad groups, hydrophobe and hydrophile, corresponding to differences in their manner of formation in plant. They are roughly inversely related by terpene content and directly related by content of hydroxyl and CHO groups. H. Nicol. Perfumery and Essential Oil Review, 1923, volume 23, pages 312 to 314.

Pulegone in Peppermint Oil

Method is described for determination of pulegone in peppermint oil:—0.15 gram sample of oil is dissolved in alcohol and boiled with 7% of alcohol solution of hydroxylamine hydrochloride. Potassium hydroxide is added, followed by 24% of nickel chloride (0.5 cc.) and cooled solution neutralized with 20% acetic acid. Precipitate is dried at 105° to 110° C. Its weight times 0.6656 equals weight of pulegone in 0.15 gram of oil. T. Pavolini. Riv. Italiana Ess. Prof., 1932, volume 14, pages 79 to 81.

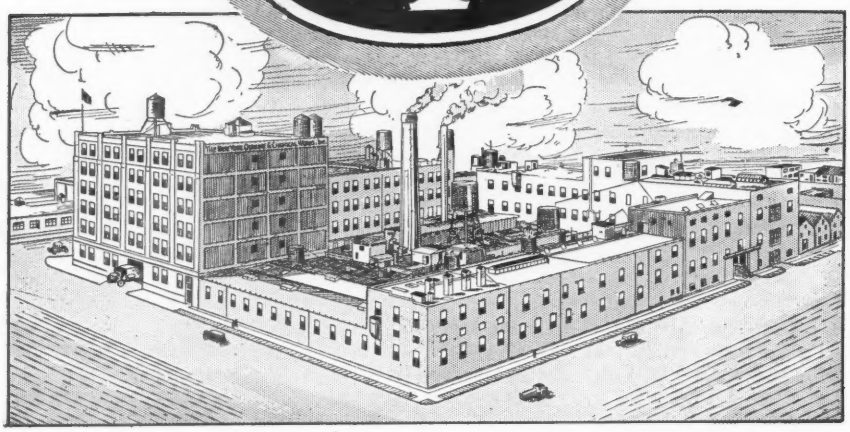
Titanium in Ointments

In this method of determining titanium in ointments, organic matter of ointment is advantageously destroyed by heating with sodium sulfate, sulfuric acid and nitric acid. Mixture of nitric acid and perchloric acid is added to mass drop by drop until decolorization is complete. Mixture may be filtered if necessary. Titanium is determined gravimetrically in filtrate by Ciochina method, volumetrically by reduction with zinc in presence of hydrochloric acid. In this case total sulfuric acid present must not be greater than 135 grams per liter. Solution is subsequently titrated with standard solution of potassium permanganate. It may also be analyzed for titanium colorimetrically after addition of hydrogen peroxide. E. Kahane. Journal de Pharmacie et de Chimie, 1932, series VIII, volume 16, pages 194 to 202.

Eye Salves

Directions are given for preparation of eye salves containing colloidal zinc hydroxide and ichthyol with mercury oxide. Salves also contain novocaine cocaine, methylene blue, adrenalin, white precipitate and noviform. H. Golaz and R. Freudweiler. Schweizer Apotheker Zeitung, volume 70, 1932, 493-6.

(Continued on page 94)



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ACID, Acetylsalicylic, 225 lb ..... bbls.	.70	.75
Agaric, 1 oz vials ..... oz	...	3.50
Arsenous, USP, 220 lb bbls lb.	...	.18
Benzoic, USP, 100 lb bbls. lb.	.50	.55
Boric, 300 lb bbls. ..... lb.	.07	.08
Cacodylic, 5 lb. bot. ..... lb.	...	8.00
Camphoric, USP, VIII 1 lb bot. ..... lb.	4.82	4.82
Carbolic, USP, crys 112 lb tins. ..... lb.	.17	.18
Cinnamic, 5 lb cans. ..... lb.	3.25	3.50
Citric, USP, crys 230 lb bbl lb	...	.29
USP, crys imp. 112 lb keg ..... lb.	.34	.36
USP, powd 200 lb bbl. . . lb.	...	.31½
Gallic, USP, 150 lb bbls. . lb.	...	.74
Glycerophosphoric, 25% 1 lb bot. ..... lb.	1.40	1.75
Hydriodic, USP, 10% 5 lb bot. ..... lb.	...	.59
Hydrobromic, USP, 40% 155 lb. cbys. ..... lb.	...	.55
Hypophosphorous, USP, 30% ..... lb.		
5 gal demis. ..... lb.	...	.85
Lactic, USP, VIII 100 lb cbys lb.	.45	.47
USP, X 100 lb cbys. ..... lb.	.47	.49
Phenylcinchonic. ..... lb.	...	3.25
Phosphoric, USP, Syr 70 lb drs.	.14	.15
Pyrogallic, crys 5 lb cans. . lb.	1.30	1.40
Resublimed, 5 lb cans . . . lb.	1.60	1.70
Salicylic, USP, 100 lb bbls. lb.	.40	.45
Stearic, double pressed, bags ..... lb.	.08	.08½
Triple pressed, bags, ... lb.	.10½	.11½
Succinic, 100 lb bbls. ..... lb.	...	1.35
Sulfurous, USP, 6% 100 lb cbys. ..... lb.	.05	.06
Tannic, USP, fluffy 50 lb bbls. ..... lb.	.90	.93
Powd 200 lb bbls. ..... lb.	.80	.85
Tartaric, USP, 300 lb bbls. lb	.20	.20½
Aconitine, Alk, crys 1 oz vials ..... oz.	...	30.00
Amorphous, 1 oz vials. . . . oz.	...	20.00
Adeps Lanae, hyd 350 lb bbls lb.	.13	.15
Anhydrous, 350 lb bbls. . . . lb.	.14	.16
Odorless, bbls. ..... lb.	.32	.34
Agaricin, 1 oz vis incl ..... oz.	...	2.32
ALCOHOL, Benzyl, 5 lb bot lb.	1.20	1.35
F. O. B. Works.		
Ethyl, USP, 190 pf 50 gal bbls. ..... gal.	...	2.535
Grain U. S. P. bbls. . . . gal.	...	2.585
Pure tax free drums. . . gal.		
Ethyl	...	.445
Grain	...	.495
Denatured, (drums included) add 5c for bbls.		
No. 1 spec. ..... gal.	.335	.415
No. 5 comp. ..... gal.	.385	.465
23 a, spec. ..... gal.	.37	.49
39 b, spec. ..... gal.	.395	.515
40 m. spec ..... gal.	.34	.46
Isopropyl refd 98-99% drs. incl. ..... gal.	.55	.60
Phenylethyl, 1 lb bot. ..... lb.	4.30	4.50
Aloin, USP, 100 lb cases. . . . lb.	.85	.90
Aluminum Acetotartrate kegs ..... lb.	...	1.60
Amidipyrine, 10 lb boxes. . . . lb.	4.00	4.10
AMMONIUM, Acetate 100 lb kegs. ..... lb.	.38	.40
Benzoate, USP, 1 lb bot. . . lb.	...	1.27
Borate, 10 lb bot. ..... lb.	...	.35
Bromide, USP, 450 lb bbls. lb.	.35	.36
Carb, USP, lump 150 lb kegs ..... lb.	...	.11
USP, powd 150 lb kegs. . lb.	...	.12
Citrate, 100 lb kegs. ..... lb.	.90	1.30
Ichthyolate, as to brand. . lb.	4.00	4.50
Iodide, USP, 25 lb jars . . . lb.	...	3.72
Phosphate, dibasic 250 lb bbls ..... lb.	.48	.50
Salicylate, USP, 100 lb kegs ..... lb.	1.15	1.20
Valerate, USP, 25 lb jars. . lb.	2.75	2.90
Amylene Hydrate, 1 lb bot. . lb.	...	7.10
Antipyrine, USP, 100 lb cans lb.	2.00	2.50
Apomorphine Hydrochloride, ¼ oz. vials. ..... oz.	22.60	22.70
Arecoline Hydrobrom, 1 oz vials ..... oz.	5.25	5.35
Aspidospermine Amorphous. oz.	...	15.00
Atropine Alk, USP, 1 oz. vials ..... oz.	6.50	7.00
Methyl bromide, 1 oz vials. oz.	...	25.00
Sulfate, 5 oz cans. ..... oz.	...	2.50
Single ounce. ..... oz.	...	3.00
Barbital, 1 lb. bot. ..... lb.	3.50	3.85
Barium Iodide, 5 lb box. . . . . lb.	...	4.35
Sulfate, X-ray diagn bbls. .lb.	.09½	.10
BAY RUM Porto Rico, 45 gal. bbls. ..... gal.	.75	.80
Domestic syn. 50 gal bbl. . gal.	.70	.75
St. Thomas, 50 gal bbls. . . gal.	.80	.90
Benzonaphthol, 5 lb boxes. . . lb.	2.50	2.60
Benzoyl Cholride, 500 lb dr. . lb.	1.00	1.05
Benzyl Benzoate, Medicinal FFC. ..... lb.	1.20	1.40
Chloride Redis, 160 lb cby. lb.	.30	.35
Formate, 1 lb bot. ..... lb.	3.25	3.50
Succinate, 160 lb cby. . . . . lb.	...	5.25
BISMUTH, metal 100 lb cases ..... lb.	...	.90
Ammon. Citrate, USP, 5 lb cans. ..... lb.	...	3.10
Betanaphtholate, 5 lb box. lb.	...	2.90
Citrate, USP, 5 lb cans. . . . lb.	...	2.45
Chloride. ..... lb.	...	2.35
Hydroxide ..... lb.	...	2.65
Nitrate, 25 lb jars. ..... lb	...	.95
Oxide anhydrous. ..... lb.	...	3.05
Oxychloride, 25 lb boxes. . . lb.	...	2.60
Salicylate, 25 lb boxes. . . . . lb.	...	1.55
Subcarbonate, USP, 25 lb boxes. ..... lb.	1.25	1.30
Subcarbonate, X-ray diag 1 lb. bot. ..... lb.	2.20	2.27
Subgallate, USP, 25 lb boxes ..... lb.	1.35	1.40
Subiodide, 5 lb lots. ..... lb.	...	3.40
Subnitrate, USP, 25 lb jar. lb.	1.10	1.15
Subsalicylate, USP, 25 lb boxes. ..... lb.	2.15	2.20
Tannate. ..... lb.	...	2.15
Borax, crys USP, 400 lb bbls. lb.	...	.06
Bromoform, USP, 5 lb bot cases ..... lb.	1.65	1.90
Butylchloral Hydrate bot. . . . lb.	4.00	5.00
Cadmium iodide, 10 lb bot. . . lb.	...	3.65
CAFFEINE Alk, USP, 1. . . . . 100 lb kegs. ..... lb.	1.95	2.00
Citrated, 50 lb cans. . . . . lb	1.55	1.60
Hydrobromide, 1 lb bot. . . lb.	4.80	5.00
Hydrochloride, 1 lb bot. . . lb	6.05	6.55
Sulfate, 1 lb bot. ..... lb.	5.40	5.90
Sodium Benzoate, tins. . . . lb.	...	3.05
Salicylate, tins. ..... lb.	...	2.95
Calcium Bromide, 100 lb cs. . lb.	...	.60
Carb, USP, 175 lb bbls. . . . lb.	.05	.06
Gluconate, Gran. 125 lb. . . . . bbls. ..... lb.	.47	.52
Powd. ..... lb.	.47	.52
Glycerophos, 250 lb bbls. . . lb.	...	1.05
Hypophos, USP, 25 lb cans lb.	.55	.60
Iodide, 5 lb bot. ..... lb.	...	3.75
Lactate, USP, 500 lb bbls lb.	.35	.40
Lactophosphate Soluble. . . lb.	...	1.20
Powdered tins. ..... lb	...	1.00
Insol, powd tins. ..... lb.	...	.50
Phosphate & Sulfate Tooth Paste grade, Works. . lbs.	.03	.06
Sulfide, USP, 100 lb drs. . . lb.	.21½	.24
CAMPHOR, Jap. ref. slabs 100 lb. cases. ..... lb.	.38	.39
Refined powd. ..... lb.	.39	.40
½ oz tab, 100 lb cases. . . . lb.	.46	.47
Liniment, bbls. ..... gal.	2.10	2.20
Monobrom, 100 lb cases. . . lb.	1.60	1.65
Casein edible, 100 lb kegs. . . lb.	.45	.55
Charcoal Animal medicinal jars incl. ..... lb.	...	.50
Charcoal Wood, powd, 100 lb. bbls. ..... lb.	.06	.07
Chloral Hydrate, USP, 25 lb jars. ..... lb.	.75	.77
100 lb drums. ..... lb.	.70	.75
Cholesterin. ..... lb.	11.00	17.00
Chloroform, USP, 50 lb drs. . lb.	.25	.27
Chlorophyll, 1 lb. bot. . . . . lb.	3.75	4.00
Chromium Sulfate Scales, tins ..... lb.	.45	.50
Powdered tins. ..... lb.	.50	.55
Chrysarobin, 50 lb tins. . . lb.	2.50	2.55
Cinchonine Alk, 100 oz tins. oz.	...	.34
Crystal. ..... oz.	.43	.46
Sulfate, 100 oz tins. ..... oz.	...	.23
Cinchonidin Sulfate, 100 oz tins ..... oz.	.32	.35
Cincophen, U.S.P. kegs. . . . lb.	...	2.75
Cocaine Alk, USP, 1 oz vial. . oz.	...	11.07
Hydrochloride, USP, ... oz.	...	8.50
CODEINE Alk, 1 oz vials, 10 lots. ..... oz.	...	10.52
Hydrobromide. ..... oz.	...	8.92
Hydrochloride. ..... oz.	...	9.52
Nitrate, oz vl 10 oz lots. . . . oz.	...	9.80
Phosp. oz vl, 10 oz lots. . . . oz.	...	7.92
Salicylate. ..... oz.	...	8.25
Sulfate, oz vl, 10 oz lots. . . oz.	...	8.42
Colchicino Alk, USP, 1 oz vl. oz.	...	20.00
Salicylate, 1 oz vls. ..... oz.	...	35.50
Cream Tartar, USP, 300 lb bbls ..... lb.	.15¾	.16¼
Imp. powd. 224 lb bbls. . . . lb.	.17¾	.17¾
Creosote, USP, 42 lb cbys. . . lb.	.45	.47
Carbonate, 150 lb. ..... lb.	1.50	1.60
Cresol, USP, 400 lb drums. . . lb.	...	.18
500 lb drums. ..... lb.	.12	.15
DIGITALIN Pure, 1 oz vial. oz	15.00	15.50
Dover's Powder, USP, 5 lb tin ..... lb.	2.75	2.80
Duboisine Sulfate, 1 oz vl. . . . oz.	35.00	40.00
Emetine Alk, 15 gr vial. . . . . oz.	...	.85
Hydrochloride, USP, 1 oz vl ..... oz.	25.00	26.00
15 grain vials. ..... oz.	2.50	2.70
Ephedrine, alk. 25 oz. tins, . oz.	1.50	1.90
Hydrochloride, 25 oz. tins, oz.	1.30	1.65
Sulfate, 25 oz. tins. ..... oz.	1.30	1.65
Epsom Salts, USP, 200 lb bbls ..... 100 lb.	2.25	2.50
Imp. 100 lb bbls. . . . . 100 lb.	2.30	2.35
Ergotin Bonjean, 1 lb jars. . .lb.	18.50	19.00
Eserine Alk, 1 oz vials. . . . . oz	...	50.00
Salicylate, 1 oz vials. . . . . oz.	...	40.00
Sulfate, USP, VIII 1 oz vials ..... oz.	...	40.00
ETHER, USP, 55 lb drums. . lb.	...	.11
Anaesthesia, 55 lb drums. . lb.	.21	.23
Nitrous, 1 lb bot. ..... lb.	...	.80
Ethyl Chloride, 200 lb bot. . . lb.	.22	.24
Ethyl Iodide, 5 lb bot. . . . . lb.	...	4.95
Formaldehyde, USP, 100 lb cbys lc-l wks. ..... lb.	.07	.07½
Gall Extract. ..... lb.	.20	.21
GLANDULAR SUBSTANCES		
Duodenal Substance, 1 lb., 100 lb., lots.	3.00	3.75
Liver Extract 1-20, 1 lb., 100 lb. lots.	4.00	5.75
Orchic Substance (Testicular) 1 lb., 100 lb. lots.	3.00	3.75
Ovarian Substance, whole, 1 lb., 25 lb. lots.	10.50	12.50
Ovarian Residue, 1 lb., 25 lb. lots.	8.50	10.00
Pituitary Substance, whole, 1 lb. 25 lb. lots.	35.00	36.50
Pituitary Substance, Anterior Lobe, 1 lb., 25 lb. lots.	29.50	31.00
Thyroid, U. S. P., 1 lb., 100 lb. lots.	3.00	3.75
Oxgall Powder, 1 lb, 100 lb. lots.	.60	1.25
GLYCERIN, CP, 550 lb drums ..... lb.	...	.10½
Gold Chloride, bottles. . . . . oz.	12.00	12.50
Guaiacol, liq. USP. 100 lb cbys. ..... lb	1.60	1.70
Crystals. ..... lb	2.25	2.50
Benzoate, 1 lb bottles. . . . . lb.	...	3.00
Carbonate, 5 lb boxes. . . . . lb.	1.75	1.80
Halazone, 5 lb bot. ..... lb.	2.75	3.25
Hexamethylenetetramine, USP, 100 lb dr. ..... lb.	.46	.47
Homatropine Hydrobrom USP. ..... oz.	...	14.50
5 oz and 1 oz vials. . . . oz.	...	13.50
Hydrastine Alk, USP, 1 oz vial ..... oz.	20.50	21.00
Hydrochlide, USP, 1 oz vials ..... oz.	20.50	21.00
Sulfate, 1 oz vial. ..... oz.		
Hydrastinine Hydrochloride, USP, 15 gr vials. . . . . oz.	22.50	23.00
Hydrogen Peroxide, USP, soln 375 lb bbls. ..... lb.	...	40.00
Hyoscine Hydrobrom, USP, 1 oz vials. ..... oz.	.03½	.04½
5 oz, 1 oz vials. . . . . oz.	13.07	35.00
Hyoscyamine Alk, crystals, 1 oz vials. ..... oz.	...	13.57
Amorphous, 1 oz vial. . . oz.	...	25.07
		75.07

Hydrobromide, USP. 1 oz vial ..... oz.	...	25.00
Sulfate, 1 oz vial ..... oz.	...	25.07
Hypoquinone, 100 lb kegs ... lb.	...	1.10
ICHTHYOL, tins ..... lb.	4.00	4.25
Iodide Arsenous, 5 lb bot ... lb.	...	5.20
Arsenous-Mercuric soln, 5 lb bot ..... lb	...	.26
Iodine, crude, 200 lb kegs ... lb.	...	1.95
Resublimed, 25 lb jars .... lb.	...	2.65
Tincture bbls ..... gal.	...	2.55
Iodoform, powd 10 lb bot ... lb.	...	5.20
Iron & Ammonium Citrate, USP, 50 lb cans ..... lb.	.42	.44
Chloride, USP, lump 400 lb bbls ..... lb.	.06	.08
Citrate, USP, VIII 25 lb can ..... lb.	.94	.99
Hypophosphite, 5 lb cans .. lb.	1.40	1.50
Iodide, 1 lb bottles ..... lb.	...	3.00
Phosphate, USP, 50 lb cans ..... lb.	...	.69
& Potas Oxalate, 250 lb bbl ..... lb.	...	.45
Pyrophosphate, USP, 50 lb ..... lb.	.74	.80
& Sod Oxalate, 50 lb. cans. lb.	...	.30½
Sulfate, USP, crys bbls .... lb.	.04	.04½
Ferrous dried bbls ..... lb.	...	.08
Valerate, tins ..... lb.	2.75	3.00
Jalap Resin, USP lumps, 5 lb tins ..... lb.	...	4.00
Powdered, tins ..... lb.	...	4.65
Lead Acetate, USP, 100 lb kegs ..... lb.	.16½	.19½
Iodide, USP, VIII 5 lb bot. lb.	...	2.55
Lecithin, 5 oz. jars ..... oz.	1.00	1.30
Vegetable, cans	1.00	2.50
Licorice Ext Mass, cases .... lb.	.19	.20
Compound powder, bbls ... lb.	.11	.13
LITHIUM CARBONATE, 250 lb bbls ..... lb.	1.25	1.35
Citrate, USP, 100 lb kegs .. lb.	...	1.40
Iodide, 5 lb bottles ..... lb.	...	4.60
Lobeline Sulfate, ¼ oz vial ... oz.	...	8.75
Magnesium Carbonate, USP, 100 lb bbls ..... lb.	.08	.09
English, oz blocks ..... oz.	.16	.18
Glycerophosphate, 5 lb tins. lb.	3.20	3.25
Hypophosphite, 5 lb cans .. lb.	1.10	1.15
Oxide, 100 lb. cases ..... lb	.35	.45
Salicylate, 100 lb kegs ..... lb	...	1.10
Stearate, bbls ..... lb.	.18	.20
Manganese Glycerophosphate, 5 lb tins ..... lb.	2.90	3.00
Hypophosphite, USP, VIII 5 lb cans ..... lb.	1.35	1.40
Iodide, 1 lb bottles ..... lb.	...	5.35
MENTHOL, USP, 60 lb cases ..... lb.	3.25	3.40
Synthetic, cases ..... lb.	2.50	2.75
Mercury Metal, 75 lb flasks ... fl.	48.00	49.00
Bichloride, crys 25 lb box .. lb.	...	.82
Gran powd, 100 lb kegs .. lb.	...	.67
Bisulfate, 25 lb boxes ..... lb.	...	1.48
Blue Mass, 25 lb boxes .... lb.	...	.84
Powd, 25 lb boxes ..... lb.	...	.85
Blue Ointment, USP, 50 %, 25 lb cans ..... lb.	...	.91
Mild 30 %, 25 lb cans .... lb.	...	.64
33 1/3 % mercury ..... lb.	...	.67
Calomel, 50 lb boxes ..... lb.	...	1.15
English ..... lb.	2.65	2.75
Iodide, green, 25 lb jars .... lb.	...	3.95
Red, USP, 25 lb jars ... lb.	...	3.55
Yellow, USP, VIII, 25 lb jars ..... lb.	...	3.65
Red precip Powd. USP, 25 lb. boxes ..... lb.	...	1.24
White precip, Powd., USP, 25 lb. boxes ..... lb.	...	1.31
Salicylate, 25 lb bot ..... lb.	...	2.32
With chalk, USP, 25 lb boxes ..... lb.	...	.69
Methanol, Pure 1c-1 drs .... gal	...	.44
Methyl Salicylate, USP, 50 lb cans ..... lb.	.40	.42
Methylene Blue, USP, med 5 lb cans ..... lb	2.00	2.05
Milk powd, 150 lb bbls ..... lb.	.09	.12
MORPHINE Alk, 5 oz tin ... oz.	10.90	10.95
Acetate, 5 oz tins ..... oz.	8.75	8.80
Hydrobromide, 5 oz tins, 10 oz lots ..... oz.	8.75	8.80
Hydrochloride, 5 oz tins, 10 oz lots ..... oz.	8.75	8.80
Ethyl Hydrochloride, 5 oz tins 10 oz lots ..... oz.	....	10.85
Sulfate, 5 oz tins, 10 oz lots oz.	7.85	8.00
Naphthalene Flake, 175 lb bbls wks ..... lb.	.04½	.05
Balls, 250 lb bbls wks ..... lb.	.05½	.06
Oxgall, Purified, 5 lb bot .... lb.	2.00	2.50
USP Extract, 5 lb. bot ..... lb.	1.80	1.90
Oxyquinoline Sulfate, tins ... lb.	8.50	9.25
Pancreatin, USP, 100 lb .... lb.	...	1.90
Paraffin, refd, 200 lb cs slabs 118 -120 deg MP ..... lb.	.08	.09
128-132 deg MP ..... lb.	.07½	.07¾
Para-Aldehyde, USP, 100 lb. carboys ..... lb.	.48	.50
Pepsin, USP, 100 lbs. 1:3000. lb.	...	2.25
100 lbs. 1:6000 ..... lb.	...	4.00
100 lbs. 1:10000 ..... lb.	...	6.50
Peptone, powd., or granular 5 lb. 100 lb. lots ..... lb.	.70	1.00
PHENOBARBITAL, U. S. P., 100 lb. lots ..... lb.	...	6.50
Phenolphthalein, U. S. P.		
100 lb drums ..... lb.	...	.52
5 lb cans 100 lb lots .. lb.	...	.60
Yellow	...	.47
Pilocarpine Hydrochloride, USP, 1 oz vials 25 oz lots ..... oz.	...	3.25
Nitrate, 25 oz lots ..... oz.	...	3.25
Single ounce ..... oz.	...	3.50
Alkaloid, 15 gr vials ..... vl.	...	.75
Piperadine, 25 oz bottles .... lb.	...	8.00
Popodhyllin 5 lb bottles ..... lb.	4.35	4.50
Potassium Acetate, USP, 100 lb kegs ..... lb.	.29	.30
Bicarb, USP, crys 320 lb bbls ..... lb.	.09½	.10
Bromide, USP, crys 100 lb cs ..... lb.	.31	.32
Citrate, USP, 100 lb. box. lb.	.42½	.43
Guaiacol Sulfonate ..... ib.	1.95	2.25
Potassium Hypophosphite, 10 lb. cans ..... lb.	.65	.70
Iodide, USP, 50 lb cases .. lb.	...	2.15
Lactophosphate, 4 ox bot .. lb.	...	.90
Permangan, USP, crys, 100 lb drs wks ..... lb.	.16	.16½
Phosphate dibasic pure, kegs ..... lb.	...	.49
Salicylate, 25 lb cans ..... lb.	...	1.18
Sulfate, USP, VIII, 100 lb kegs ..... lb.	.13	.15
Sulfocyanide, CP 15 lb jars lb.	...	.50
Tartrate, CP, tins ..... lb.	...	.65
Pyrogallol, USP, see Acid Pyrogallic	...	...
Quinidine Alk, 100 oz tins ... oz.	.75	.80
Sulfate, 100 oz tins ..... oz.	...	.50
QUININE SULFATE, USP, 100 oz tins ..... oz.	...	.40
1 oz tins, 100 oz lots .... oz.	...	.50
Acetate ..... oz.	...	.74
Arsenate ..... oz.	...	.76
Benzoate ..... oz.	...	.74
Bisulfate, USP ..... oz.	...	.40
Citrate ..... oz.	...	.50
Dihydrobromide ..... oz.	...	.54
Dihydrochloride, USP .... oz.	...	.54
Ethyl Carbonate, 16 oz tins ..... oz.	...	.54
Ferrocyanide ..... oz.	...	.74
Formate ..... oz.	...	.72
Glycerophosphate ..... oz.	...	.92
Hydrobromide, USP ..... oz.	...	.50
Hydrochlorosulfate ..... oz.	...	.54
Hypophosphite ..... oz.	...	.70
Lactate ..... oz.	...	.66
Phenolsulfonate ..... oz.	...	.78
Phosphate ..... oz.	...	.62
Salicylate, USP ..... oz.	...	.52
Tannate, USP ..... oz.	...	.40
Tartrate ..... oz.	...	.74
Valerate ..... oz.	...	.78
Urea Hydrochloride, USP .. .. oz.	...	.54
Rennet, N. F. 5 lb 1:25,000 ... lb.	2.95	3.50
Resorcinol, USP, 25 lb cans . lb.	1.57	1.65
Rochelle Salt, USP, 225 lb bbl ..... lb.	.12½	.13
Rock Sugar, 5 lb boxes ..... lb.	...	.15
Saccharin, USP, 10 lb cans ... lb.	1.70	1.80
USP, Soluble, 10 lb cans ... lb.	1.75	1.85
Salicin, USP ..... lb.	...	12.50
SALOL, USP, 100 lb drums . lb.	...	.90
Saltpetre, powd, bbls wks .... lb.	.06¾	.08¼
Santonin, USP, bulk ..... lb.	.65	.70
Saponin, refined ..... lb.	1.30	1.50
Seidlitz Mixture, 250 lb bb .. lb.	.10¾	.11¼
Silver Metal, American ..... oz.	...	.29½
Iodide, 16 oz lots ..... oz.	...	.69
Nitrate, 100 oz bottles .... oz.	.19½	.21½
Nucleinate, bulk ..... oz.	...	.37
Proteinate ..... oz.	.39	.41
SODIUM BENZOATE, USP, 100 lb bbls ..... lb.	.42	.47
Bromide, USP, 100 lb kegs. lb.	.31	.32
Cacodylate, USP, 25 lb bot ..... lb.	4.75	5.90
Citrate, USP, X100 lb. box. lb.	.33½	.35½
USP VIII, 100 lb. box .. lb.	.26½	.28
Glycerophosphate, N.F., crys 25 lb cans ..... lb.	1.27	1.33
Powder, 25 lb tins ..... lb.	1.32	1.38
Soln, USP, 25 lb tins ... lb.	1.05	1.15
Hypophosphite, USP, 25 lb cans ..... lb.	.60	.65
Iodide, USP, 25 lb jars ... lb.	...	2.75
Phosphate (Mono-Sodium), 100 lb kegs ..... lb.	.28	.29
Di-Sodium USP, granular, 275 lb bbls ..... lb.	.07½	.08
Pyrophosphate, 100 lb kegs ..... lb.	...	.29
Salicylate, 100 lb kegs .... lb.	...	.47
Sulfocarbolate, USP, 100 lb kegs ..... lb.	...	.25
Sulfocyanate, CP crys, jars included ..... lb.	...	.60
Spartein Sulfate, USP, 25 oz bulk ..... oz.	.65	.70
Single oz vial ..... oz.	.77	.90
STRONTIUM BROMIDE USP, 50 lb kegs ..... lb.	.46	.47
Carb, 100 lb kegs wks .... lb.	...	.20
Iodide, USP, 25 lb jars .... lb.	...	3.00
Lactate, kegs ..... lb.	.90	1.10
Nitrate, 600 lb bbls NY ... lb.	.08	.08½
Imp. bbls NY ..... lb.	.08	.08½
Salicylate, USP, 100 lb keg lb.	...	1.10
Strophanthin, USP, 1 oz vial. oz.	19.00	19.00
Crystals ..... lb.	75.00	75.00
Strychnine Alk, USP crys, 100 oz tins ..... oz.	...	.45
Powdered ..... oz.	...	.35
Acetate ..... oz.	...	.65
Arsenate, 25 oz cans ..... oz.	...	.65
Glycerophosphite, USP .... oz.	...	.65
Hydrobromide ..... oz.	...	.65
Hydrochloride ..... oz.	...	.65
Hypophosphite ..... oz.	...	.75
Nitrate, USP ..... oz.	.55	.72
Phosphate ..... oz.	...	.65
Sulfate, USP, powd ..... oz.	...	.27
Sugar, refined, 275 lb bbl 100 lb	5.80	5.90
Milk, USP, 200 lb bbls ... lb.	.18	.20
Sulfonethylmethane, USP, 10 lb boxes ..... lb.	3.85	4.05
Sulonmethane, USP, 10 lb box ..... lb.	2.65	3.85
Sulfur flwrs. washed, USP, 125 lb bbl ..... lb.	...	.06
Iodide, USP, VIII, 5 lb bot lb.	...	3.85
TARTAR EMETIC, USP, 300 lb bbls ..... lb.	.26	.28
Terebene, tins ..... lb.	...	.85
Terpin Hydrate, USP, 100 lb kegs ..... lb.	.30	.32
Theobromine Alk, 5 lb cans . lb.	1.85	2.15
Sod. Salicylate, 1 lb bot ... lb.	...	2.10
Sod. Benzoate, 1 oz vials . oz.	...	1.00
Thymol, USP, 25 lb tins ..... lb.	1.25	1.35
Iodide kegs ..... lb.	...	4.30
Veratrine Alkaloid ..... oz.	...	2.25
Sulfate, 1 oz vials ..... oz.	...	2.25
Witch Hazel Ext., 50 gal bbl ..... gal.	.60	.80
Zinc Carb, USP, 100 lb keg . lb.	.28	.31
Chloride, USP, 25 jars ex . lb.	.24	.29
Iodide, 5 lb bottles ..... lb.	...	4.25
Oxide, USP, 100 lb bbls ... lb.	.13	.14
Stearate, USP, 50 lb bbl . lb.	.15	.17
Sulfate, USP, 100 lb bbl . lb.	.08	.09
Sulfocarbolate, 100 lb kegs . lb.	.23	.26

Miscellaneous

Absorption Bases ..... lb.	.60	.75
Castor Oil, odorless, bbls ..... lb.	...	.12
Chalk drop, 175 lb. bbls ..... lb.	...	.03½
Precip. light, 250 lb. cask .. lb.	...	.04½
Heavy 540 lb. casks ..... lb.	...	.02½
Bulk ..... ton	...	5.00
English light, bags ..... lb.	...	.04½
English light, casks ..... lb.	.05½	...
Cocoa Butter, fingers ..... 12 lb. box ..... lb.	.24	.26
Cod Liver Oil Nor. 30 gal. bbls	18.00	21.00
Newfoundland ..... bbl.	...	25.00
Collodion U. S. P. 30 lb. dr ... lb.	...	.23
Colors certified; 1 lb. cans, 5 lb. cans		
Amaranth No. 107 ..... lb.	2.55	2.65
Brilliant Blue F.C.F. ..... lb.	13.25	13.50
Erythrosine No. 517 ..... lb.	17.00	17.50
Orange Ind. 85 ..... lb.	2.55	2.65
Ponceau 3R No. 56 ..... lb.	5.25	5.50
Tartrazine No. 94 ..... lb.	2.55	2.65
Corn Syrup 42° 50 gal. bbl. ..... 100 lb.	3.91	4.16
Gelatin, USP, Silver 100 lb. cases ..... lb.	.55	.60
Pure Food, 50 lb. bbl ..... lb.	.53	.55
Glucose, (grape sugar) dry 70° bags c-l NY ..... 100 lb.	3.14	3.24
Haarlem Oil, bot 6 gross cases ..... gross	...	3.75
Imported, 5 gr. cs ..... gross	...	3.50
Kaolin, Bags ..... lb.	.06	.08
Colloidal Grade 200 lb. tin lined wooden drums .... lb.	.15	.29
Mineral Oil White, 50 gal. bbls.		
80-85 vis ..... gal.	.45	.50
85-90 vis ..... gal.	.65	.70
125-130 vis ..... gal.	.75	.85
290 vis ..... gal.	.80	.90
Russian 80-85 vis ..... gal.	.55	.60
110-115 vis ..... gal.	.70	.75
145-155 vis ..... gal.	.73	.78
180-185 vis ..... gal.	.78	.83
320-330 vis ..... gal.	.83	.88
Olive Oil, Edible bbls ..... gal.	1.45	1.55
Paraffin Wax, fully refined, slabs		
125 @ 127 A.M.P. bags lb	...	.03½
130 @ 132 A.M.P. bags lb	...	.03¾
135 @ 137 A.M.P. bags lb.	...	.04½
Petrolatum, Lily White, USP. 400 lb. bbl ..... lb.	.07½	.08½
Snow White USP, 400 lb. bbls ..... lb.	.09	.10
Rice Starch, 140 lb bags .... lb.	.09	.10
Soap Castile, bars 40 lb. Case ..... Cs.	...	12.75
Powd. USP 250 lb. bbls ... lb.	.26	.28
Green, USP, 450 lb. bbls ... lb.	.07½	.07½
Neutral, powd. 200 lb. bbls. lb.	.18	.20
Talc, Italian, 220 lb bags ... ton.	60.00	80.00
French, 220 lb bags ..... ton.	40.00	45.00
Turtle Oil, gal.	3.50	5.00

Waxes, See Drugs & Spices

Acetophenene, CP, 1 lb bot..lb.	3.50	3.65
Aldehyde, C 8 (Otcyl) 1 lb bot ..lb.	...	38.00
C 7, 1 lb bot.....lb.	4.50	5.50
C 9 (Nonyl), 1 lb bot ....lb.	...	56.00
C 10 (Decyl), 1 lb bot....lb.	..	36.00
C 14, 1 lb bot.....lb.	..	18.00
C 16, 1 lb bot.....lb.	...	16.00
AMYL ACETATE, pure, 25 lb cans.....lb.	.43	.50
Butyrate, 1 lb bot.....lb.	1.25	1.50
Butyrate, 5 lb bot.....lb.	...	1.00
Cinnamate, 5 lb bot.....lb.	9.50	9.75
Formate, 1 lb bot.....lb.	...	1.75
Formate, 5 lb bot.....lb.	...	1.60
Phenyl Acetate, 1 lb bot...lb.	4.50	5.00
Salicylate, 100 lb cbys.....lb.	.70	.75
Imported.....lb.	.25	2.50
Anethol, 2 lb bot.....lb.	.85	1.00
Anisic Aldehyde, 1 lb bot....lb.	3.10	3.60
Benzaldehyde, USP, 40 lb cbys ..lb.	...	...
50 lb cbys.....lb.	1.35	1.45
FFC, 40 lb cbys.....lb.	1.25	1.35
Benzoic Ether, see Ethyl Benzoate.....		
Benzophenone, 1 lb bot.....lb.	1.75	2.25
Benzyl Acetate, 100 lb cbys..lb.	.60	.80
Alcohol, 5 lb bot.....lb.	.85	.95
BENZYL BENZOATE.....	1.10	1.15
Medicinal, FFC.....lb.	...	1.40
Buytrate, CP, 1 lb bot....lb.	9.25	9.50
Benzyl Cinnamate, 1¼ bot. lb.	7.00	7.25
Formate, 1 lb bot.....lb.	3.15	3.25
Propionate, 1 lb bot.....lb.	2.25	2.40
Succinate, 1 lb bot.....lb.	5.25	5.50
Valerate, 5 lb bot.....lb.	3.00	3.25
Borneol, 1 lb bot.....lb.	1.35	1.85
Bornyl Acetate, 1 lb bot....lb.	1.50	2.60
Bromstyrol, 25 lb cases.....lb.	3.75	3.85
Butyl Anthranilate dom, 1 lb bot.....lb.		
Carvol, 5 lb bot.....lb.	3.00	3.40
Cinnamic Acid, 5 lb cans....lb.	3.25	3.50
Alcohol liquid, 1 lb bot...lb.	2.50	2.60
Crystallizable.....lb.	7.00	8.00
Aldehyde.....lb.	2.25	2.50
Imported, 1 lb bot.....lb.	7.75	9.00
Citral, 25 lb cans.....lb.	1.65	3.00
Citronellol 1 lb bot.....lb.	2.00	2.25
Citronelyl Acetate, 1 lb bot..lb.	3.50	3.75
Coumarin, 25 lb cans.....lb.	3.25	3.50
DECYL ALCOHOL.....lb.	22.00	25.00
Diphenyloxide, 25 lb tins....lb.	1.05	1.20
Diphenyl Methane.....lb.	1.75	2.00
Duodecyl Alcohol.....lb.	20.00	22.00
Ethyl Acetate, pure, 5 lb bot..lb.	.05¼	.06½
Benzoate, 5 lb bot.....lb.	1.25	1.50
Ethyl Butyrate, 5 lb bot....lb.	1.80	2.00
Caproate, 1 lb bot.....lb.	3.25	3.50
Cinnamate, 1 lb bot.....lb.	4.00	4.50
Formate, 5 lb bot.....lb.	1.00	1.25
Methyl Paracresol, 1 lb bot ..lb.	3.25	3.50
Phenyl Acetate, 5 lb bot..lb.	3.75	4.00
Valerate, 5 lb bot.....lb.	...	3.75
Salicylate, 5 lb bot.....lb.	1.95	2.00
Eucalyptol, USP, 50 lb cans..lb.	.55	.60
Eugenol, USP, 25 lb cans....lb.	2.00	2.50
Geraniol, 50 lb cases.....lb.	1.75	2.35
Geranyl Acetate, 1 lb bot....lb.	2.75	2.80
Butyrate, 1 lb bot.....lb.	13.00	13.50
Formate, 1 lb bot.....lb.	12.00	12.50
Heliotropin, 100-10 lbs.....lb.	1.65	1.75
Imported.....lb.	1.95	2.05
Hydroxycitronellal, 1 lb.....lb.	3.60	5.60
Indol, CP, 1 oz bot.....oz.	2.90	3.00
IONONE, 1 lb bot 100%...lb.	5.00	6.00
Alpha.....lb.	4.50	4.70
Beta.....lb.	5.70	5.75
Methyl.....lb.	5.00	5.25
Iso Borneol.....lb.	2.25	2.35
Iso Bornyl Acetate.....lb.	3.00	3.20
Iso-Butyl Benzoate, 5 lb bot..lb.	2.75	3.00
Iso-Eugenol, 1 lb bot.....lb.	2.85	2.90
Iso-Safrol, 1 lb bot imp.....lb.	1.75	1.85
Domestic, 5 lb bot.....lb.	3.50	3.75
Linalol from Bois de Rose, 5 lb bot.....lb.	1.65	3.50
Linalyl Acetate, 1 lb bot....lb.	2.25	2.35
Benzoate, 1 lb bot.....lb.	13.00	14.00
Formate, 5 lb bot.....lb.	10.50	12.00
METHYL ACETOPHENONE .....lb.	2.00	2.15
Anthranilate, 1 lb bot.....lb.	2.10	2.20
Imported.....lb.	2.70	2.75
Anthranilic Acid.....lb.	8.25	8.50
Benzoate, 5 lb bot imp....lb.	1.25	1.35
Domestic, 5 lb bot.....lb.	1.25	1.35
Cinnamate, 1 lb bot.....lb.	3.35	3.85
Heptenone, 1 lb bot.....lb	3.50	4.00
Paracresol, 1 lb bot.....lb	4.50	8.00
Phenylacetate, 5 lb bot...lb	2.50	2.75
Salicylate, USP, 500 lb dr .lb.	...	.40
50 lb cases.....lb.	...	.42
Mirbane rect. 1,000 lb drs...lb.	.12	.13
Musk Ambrette 1 lb cans...lb	6.00	6.25
Ketone 1 lb cans.....lb	7.55	7.80
Xylene 5 lb cans.....lb.	2.25	2.85
Nerolin 1 lb cans.....lb.	1.35	1.40
Octyl Alcohol 1 lb bot.....lb.	16.00	18.00
Oenanthic Ether lb bot.....lb.	1.90	2.00
Oleoresin Aspidum..... USP, bot and tins.....lb.	...	1.25
Capsicum, USP, bot and tins .....lb.	2.10	2.20
Cubeb, USP, bot and tins..lb.	2.50	2.75
Ginger bot and tins.....lb.	2.25	2.75
Malefern see Aspidum.....		
Orris, bot & tins.....lb.	12.00	15.00
Pepper, black, USP, bot & tin .....lb.	...	9.50
Vanilla, bot & tins.....lb.	7.00	7.75
Paracresol Methyl Ether....lb.	4.25	4.50
Paracresyl Acetate.....lb.	5.50	5.75
Para Cymene Refd 110 gal dr .....gal.	2.25	2.50
PHENYLACETALDEHYDE 50% 1 lb bot.....lb.	4.50	4.75
Imported 50%.....lb.	4.50	4.75
100%.....lb.	8.00	8.25
Phenylacetic Acid 1 lb bot..lb.	2.65	2.90
Phenyl Diacetate 1 oz bot....oz.	3.00	3.25
1 lb bot.....lb.	8.00	10.00
Imported.....lb.	7.00	7.75
Phenylethyl Alcohol 1 lb bot..lb.	3.75	4.00
Phenyl Ethyl Acetate.....lb.	8.25	8.75
Butyrate 1 lb bot.....lb.	15.00	16.00
Formate, 1 lb bot.....lb.	19.00	21.00
Propionate, 1 lb bot.....lb.	10.00	12.00
Valerate, 1 lb bot.....lb.	14.00	15.00
Phenylpropylalcohol, 1 lb bot .....lb.	8.50	9.00
Rhodinol, 1 lb bot.....lb.	7.00	8.00
Saffrol, drums.....lb.	.30	.32
60 lb cans.....lb.	.32	.34
Skatol, 1 oz bot.....lb.	4.50	7.00
Terpinyl Acetate, 25 lb cans..lb.	.85	.90
Imported, 25 lb cans.....	.85	.90
TERPINEOL, CP, 1000 lb drs .....lb.	.27	.29
50 lb cans.....lb.	.31	.33
Absolute, 25 lb cans.....lb.	.48	.50
Imported, 25 lb cans...lb.	.58	.60
TOLYL ALDEHYDE, F.F.C. 40 lb. carboys.....lb	1.25	1.50
Valerianic Ether see Ethyl Valerate.....		
Vanillin (Clove Oil), USP.lb.	5.50	5.75
(Guaiacol) USP.....lb.	5.00	5.25

Essential Oils

Almond Bitter, USP, 5 lb bot lb.	2.15	2.25
Bitter, ffPA, 5 lb bot.....lb.	2.25	2.35
Sweet, 56 lb cans.....lb.	.36	.40
Almond Meal, 25 lb cans....lb.	.20	.21
Amber crude, 25 lb tins.....lb.	.16	.18
Rectified, 25 lb tins.....lb.	.50	.53
Amber liquid, 400 lb drs.....lb.	2.20	2.30
Ambergris, Black, boxes.....oz.	14.00	15.00
Gray boxes.....oz.	25.00	30.00
Angelica Root, 1 lb bot.....lb.	19.00	29.00
Anise Tech, 400 lb drums...lb.	.30	.32
USP, 60 lb cans.....lb.	.32	.34
Apricot Kernel, 50 lb cans...lb.	.22	.23
Bay, 25 lb tins N. F. V., 50.55% Phenol.....lb.	1.50	1.65
Terpeneless.....lb.	4.25	4.45
BERGAMOT, 25 lb coppers.lb.	1.25	2.00
Terpeneless.....lb.	6.25	9.25
Artificial, 25 lb cans.....lb.	1.25	1.50
Birch, Sweet, Northern, 25 lb tins.....lb.	3.00	3.10
Southern, 25 lb tins.....lb.	...	1.85
Birch Tar, rect., 5 lb bot.....lb.	.50	.55
Crude, 50 lb tins.....lb.	.13	.14
Bois de Rose, tins..... Brazillian.....lb.	.95	1.10
Cayenne, tins.....lb.	1.85	2.00
Cade, 25 lb cans.....lb.	.24	.25
Cajuput, native, 50 lb tins..lb.	.48	.60
Calamus, 5 lb bot.....lb.	2.75	3.00
Camphor Sassa, 1000 lb drs..lb.	.10	.12
White, 400 lb drs.....lb.	.11	.13
Cans, 50 lbs.....lb.	.13	.15
CANANGA, Native 25 lb tins .....lb.	1.60	1.75
Rectified, 25 lb tins.....lb.	2.05	2.20
Caraway, USP.....lb.	1.35	1.40
Cardamon, NF, 1 lb bot.....lb.	15.00	16.00
Cascarilla, 1 lb bot.....lb.	56.00	70.00
Cassia, ...	...	...
Redist, USP, 50 lb cans...lb.	.85	.90
Cedar Leaf, 50 lb tins.....lb.	.60	.65
Cedar Wood, light, 1000 lb drs .....lb.	.25	.30
Celery, 1 lb bot.....lb.	8.50	10.00
Chaulmoogra, USP 80 lb cases lb.	...	1.50
Cinnamom Ceylon, 1 lb bot..lb.	8.00	10.00
Leaf, 5 lb bot.....lb.	1.85	1.95
CITRONELLA Ceylon, 1000 lb drs.....lb.	.34	.35
50 lb tins.....lb.	.35	.36
Java, 400 lb drs.....lb.	.48	.51
50 lb tins.....lb.	.50	.55
Civet, Abyssin, horns.....oz.	2.10	3.00
Cloves, USP, 50 lb cans.....lb.	.75	.85
6 lb bot.....lb.	.85	.90
Copaiba.....lb.	.45	.50
Coriander, USP, 10 lb bots..lb.	3.90	4.15
Croton USP, 25 lb tins.....lb.	2.40	2.60
Cubebs, USP, 5 lb bot.....lb.	2.50	2.70
Cumin, 1 lb bot.....lb.	7.00	7.50
Dill, 25 lb cans.....lb.	3.00	5.25
Erigeron, 20 lb tins.....lb.	.95	1.05
EUCALYPTUS Austl, USP, 56 ib cans, cases.....lb.	.22	.24
500 lb drs.....lb.	.20	.21
Fennel, USP, 25 lb tins.....lb.	.95	1.10
Geranium African, 25 lb tins..lb.	4.25	5.00
Bourbon, 28 lb tins.....lb.	4.20	4.75
Turkish, 28 lb tins.....lb.	1.50	1.65
Ginger, 1 lb bot.....lb.	3.40	3.65
Gingergrass, 28 lb tins.....lb.	2.50	2.70
Grape Fruit.....lb.	2.75	2.85
Hemlock, 25 lb tins.....lb.	.85	1.00
Juniper Berries, USP, 25 lb tins .....lb.	1.20	2.00
Wood, 50 lb tins.....lb.	.50	.60
Labdanum, 5 lb bot.....lb.	5.50	6.00
LAVENDER, USP, 28 lb tins .....lb	1.45	2.00
Spike Spanish, 50 lb cans..lb.	.48	.65
Lemon Ital, 25 lb cans.....lb.	.75	1.10
California 35 lb cbys....lb.	.70	.75
Lemongrass, native, 50 lb cans .....lb.	.42	.45
Limes, expressed, 25 lb tins..lb.	11.00	12.75
Distilled, 25 lb tins.....lb.	6.75	7.25
Linaloe Mex., 70 lb cases....lb.	...	1.40
Mace, distilled, 50 lb tins....lb.	.85	.90
Mandarin, 25 lb cases.....lb.	4.00	4.50
Musk Pods Cabardine, tins..lb.	...	...
Musk Tonquin, tins, Pods...oz.	18.00	20.00
Tonquin, tins, Grained..oz.	20.00	22.00
MUSTARD, USP, 1 lb bots.lb.	8.50	9.00
Artif, USP, 5 lb bot.....lb.	1.50	1.60
Neroli Bigarade, ¼ & ½ & 1 lb bot .....lb.	75.00	105.00
Petale, 1 lb bot.....lb.	95.00	105.00
Artificial, 1 lb bot.....lb.	5.00	15.00
Nutmeg, USP, 50 lb tins....lb	.85	.90
ORANGE BITTER, 25 lb tins .....lb	1.10	1.50
Sweet W Ind, 25 lb tins..lb	1.05	1.30
Italian, 25 lb cop.....lb	1.00	1.25
Orange American, Cold pressed 25 lb tins.....lb.	.85	1.20
Distilled, 25 lb tins.....lb.	.48	.58
Spanish, 25 lb tins.....lb.	...	1.20
Oil Orris, concrete.....oz.	4.00	4.25
Origanum, 50 lb cans tech...lb.	.25	.27
Parsley, 1 lb bot.....lb.	6.50	6.75
Patchouli, 5 lb bot.....lb.	3.25	4.00
Pennyroyal, dom, 25 lb tins..lb.	1.65	1.75
Imported, 25 lb tins.....lb.	...	1.25
Pepper Black lb.....	...	6.00
Peppermint, nat. 60 lb cases lb.	1.85	1.95
Redis, USP, 60 lb cs.....lb.	2.05	2.15
Petit Grain S A., 25 lb tins..lb.	.90	.95
French, 1 lb bot.....lb.	4.50	4.75
Italian, 25 lb tins.....lb.	2.20	2.30
Pimento Leaf, 25 lb tins ....lb.	1.15	1.30
Berries, 25 lb tins .....lb	3.00	3.10
Pine Needle Siberian, cans..lb.	.80	1.00
Pinus, Sylvestris, 25 lb tins..lb.	1.30	2.00
Pumilio, USP, 25 lb tins...lb.	1.90	1.95
Rose Fr, 8, 16, & 32 oz pkgs..lb.	14.00	17.00
Bulg, 8, 10 & 32 oz pkgs...oz.	6.00	17.00
Rosemary, USP, 27½ lb tins..lb.	.34	.40
1000 lb drums.....lb.	.32	.38
Tech, 25½ lb tins.....lb.	.26	.28
Rue, 1 lb bot.....lb.	2.00	2.25
SANDALWOOD, E Ind ,USP, 100 lb case.....lb.	5.50	6.50
W Indian (Amyris), 25 lb. tins.....lb.	2.85	2.95
Australian, Tins.....	5.65	5.65
Sassafras, USP, 50 lb cans...lb.	.70	.80
Artificial, 1000 lb drs, 60 lb cans.....lb.	.16½	.18½
Safrol, cans.....lb.	.22	.24
Sage, Dalmatian, 25 lb. cans.lb.	2.00	2.10
Savin, 50 lb tins.....lb.	1.85	2.00
Snakeroot, Canada.....lb.	8.25	8.50
SPEARMINT, USP, 50 lb tins .....lb	.90	1.10
Spruce, 50 lb tins.....lb	.70	.75
Tansy, American, 25 lb tins..lb.	1.80	1.90
Tar, 50 gal bbls.....lb.	.25	.30
USP, 50 gal bbls.....lb.	.75	1.50
Thyme, red, NF, 25 lb tins..lb.	.60	.75
White, NF, 25 lb tins.....lb.	.65	.80
Tech, 110 lb drums.....lb.	.50	.55
Turpentine, USP, rect cbys..lb.	.27	.30
Vetivert Bourbon, 10 bot....lb.	4.00	4.25
Indian, 1 lb bot.....lb.	25.00	38.00
Java, 1 lb bot.....lb.	12.00	13.00
Wine, heavy, 1 lb bot.....lb.	1.50	1.60
WINTERGREEN Gaultheria, true, 25 lb tin.....lb.	8.00	10.00
Southern, 25 lb tins....lb.	3.75	4.00
Synthetic see Methyl salicylate.....		
Wormseed, Balt, 25 lb tins...lb.	1.90	2.20
Wormwood, dom, 25 lb tins..lb.	2.25	2.75
Ylang Ylang Bourbon, 10 lb tins No. 1.....lb.	4.00	4.25
10 lb tins No. 2.....lb.	3.00	3.50
Manila, 1 lb bot.....lb.	22.00	27.00

Drugs and Spices

Aconite Root, USP, bags	lb.	.13	.14
Agar Agar, No. 1, bales	lb.	.50	.52
Agar Agar No. 2, bales	lb.	.45	.47
Almonds Meal	lb.	.21	.26
Aletris Root, bags	lb.	.16	.18
Alkanet Root, bags	lb	.09	.10
ALOES, Cape, 400 lb cases	lb.	.09	.10
Curacao, 140 lb cases	lb.	.10	.11
Socotrine, Whole, 300 lb cs	lb.	.30	.33
Althea Root, bags	lb.	.14	.16
Cut cases	lb.	.13	.15
Angelica Root, bags	lb.	**.12**	**.13**
Angostura Bark, bags	lb	.18	.19
Anise Star case	lb	.11	.12
Spanish, bags	lb	.08½	.09½
ARABIC GUM, White, No. 1, 220 lb bags	lb.	**.14**	**.15**
Seconds, 220 lb bags	lb.	.13	.14
Sorts, Amber, 220 lb bags	lb.	.06½	.06½
Powd, USP, 300 lb bbls	lb.	.10	.13
Areca Nuts, 100 lb bbls	lb.	.05	.07
Powd, 100 lb bbls	lb.	.10	.11
Arnica Flowers, bales	lb.	.10	.11
Root, bags	lb.	.40	.41
Arrowroot, St. Vincent, powd bbls	lb.	.08	.09
Asafoetida, 250 lb cases	lb.	.16	.17
Powd, 50 lb boxes	lb.	.26	.27
Balm Gilead Buds, bags	lb.	.22	.23
Balmony Herbs, bales	lb.	.10	.12
BALSAM COPAIBA Para, 80 lb cases	lb.	.16	**.17**
South American, USP, 80 lb cases	lb.	...	**.24**
Peru, 120 lb cases	lb.	.85	.90
Tolu, 90 lb cases	lb.	.72	.82
Barberry Bark, of root, bags	lb.	**.16**	.17
Bayberry Bark, bales	lb.	.07	.08
Wax bbls	lb.	**.17**	.19
BELLADONNA LEAVES, bale	lb.	.10	.12
Root, bags	lb.	.11	.12
Bees Wax, White, cases	lb.	.30	.34
Yellow refined cases	lb.	.21	.24
Yellow Crude Bags	lb.	.16	.17
Benzoin Gum, Siam, boxes	lb.	1.00	1.25
Sumatra, cases	lb.	.18	.20
Berberis Aquafolium Root, bags	lb.	**.08**	**.09**
Beth Root, bags	lb.	.08	.09
Black Indian Hemp Root, 100 lb bags	lb.	.10	.11
Blood Root, bags	lb.	.10	.11
Blueflag Root, bags	lb.	**.12**	**.13**
Boldo Leaves, bales	lb.	**.15**	**.17**
Boneset Herb, bales	lb.	.08	.09
Borage Flowers, bales	lb.	.17	.19
Broomtop Herb Cut, bales	lb.	.07	.08
Bryonia Root, bags	lb.	**.09**	**.10**
BUCHU LEAVES Short, 250 lb. bales	lb.	.20	.22
Long bales	lb.	.75	.80
Buckbean Leaves, bales	lb.	.08½	.09
Buckthorn Bark, bags	lb.	.04½	.05½
Berries, bags	lb.	**.29**	**.34**
Burdock Root, bags	lb.	.07	.08
Seed bags	lb.	.30	...
Burgundy Pitch, 110 stand gross for net	lb.	.08	.09
Imported	lb.	**.10**	**.11**
Calabar Beans, bags	lb.	**.15**	**.16**
Calamus Root, blchd cases	lb.	.25	.27
Unbleached, bags	lb.	**.07**	.08
Calendula Petals, imp bales	lb.	.45	.48
Calisaya Bark, bales	lb.	.19	.20
Powdered, bbls	lb.	.24	.25
Canary Seed, South America, bags	lb.	.05	.05½
Dutch, bags	lb.	.05	.06
Candelilla Wax, bags	lb.	.12	.14
Cannella Alba Bark, bales	lb.	.25	.26
Cannabis, U.S.P.	lb.	.16	.23
Cantharides, Chinese, cases	lb.	.85	.90
Powdered, boxes	lb.	1.00	1.10
Russian, cases	lb.	No stocks	
Powdered, boxes	lb.	No stocks	
Caraway Seed, African, bags	lb.	.04½	.05½
Dutch, 11 lb bags	lb.	.12	.13
Cardamon bleached, cases	lb.	.88	.93
Decorticated, cases	lb.	.58	.60
Carnauba Wax No. 1, 100 lb. bags	lb	.22	.23
Cascara Amarga, 150 lb bbls	lb.	...	.30
So called bales	lb.	.25	.30
CASCARA SAGRADA, 1930 bark	lb.	.10	.11
1931 bark	lb.	.09	.10
1932 bark	lb.	.08½	.09½
Cascarilla Bark, quills, bales	lb.	.65	.70
Siftings, bbls	lb.	.50	...
Cassia Batavia No. 1 bbls	lb.	.07	.07½
Shortstick, bales	lb.	.06	.06½
Batavia No. 3, bales	lb.	.05½	.06
China Select Rolls, cases	lb.	.02½	.03½
Broken, bales	lb.	.05½	.05¾
Saigon, thin	lb.	.19½	.20
Buds, cases	lb.	.17	.18
Fistula, baskets	lb.	.15	.16
Catnip, Herb, bales	lb.	.15	.16
Celery Seed, bales	lb.	.38	.40
Ceresin Wax, White, bags	lb.	.10	.15
Yellow 200 lb. bags	lb.	.09	.12
Imp white 100 lb. bags	lb.	.21	.38
CHAMOMILE FLOWERS Roman, bales	lb.	.25	.28
Hungarian, cases	lb.	.14	.15
Charcoal Willow, powd, bbls	lb.	06	.06½
Wood, powd, bbls	lb.	.04	.05
Chestnut Bark	lb.	.07	.08
Leaves bales	lb.	.05	.06
Chicle Gum, 200 lb. bales	lb.	.27	.30
Chiretta, bales	lb.	.12	.15
Cinnamon, Ceylon, No. 1, bales	lb.	.12	.14
No. 2 bales	lb.	.09½	.10
No. 3 bales	lb.	.11½	.12
Clover Tops, Red, bags	lb.	.09	.11
Cloves Zanzibar, 135 lb bbl	lb.	.11½	.12
Cochineal, Black	lb.	.51	...
Silver	lb.	.45	...
Cohosh Root, Black, bags	lb.	.05	.06
Blue, bags	lb.	.06	.07
Colchicum Root, bags	lb.	.11	.13
Seed, bags	lb.	.60	.65
COLOMBO ROOT, bags	lb.	**.05**	**.06**
Colocynth Pulp, bales	lb.	.12	.13
Coltsfoot Leaves, bags	lb.	.06	.07
Comfrey Root, bags	lb.	.10	.11
Condurango Bark, bags	lb.	.09	.10
Coriander Seed, Morocco, bags	lb.	.06	.07
Bleached, bags	lb.	.08	.09
Corn Silk, bales	lb.	.05½	.06½
Cotton Root Bark, bales	lb.	.06	.07
Cowhage, 1 oz tins	lb.	1.00	...
Cramp Bark so called bales	lb.	.06	.07
True, bags	lb.	.25	.27
Cranesbill Root, bags	lb.	.08	.09
CUBEB BERRIES, XX bags	lb.	.30	.31
Powdered, boxes	lb	.32	.33
Culvers Root, bags	lb.	.11	.12
Cumin Seed, Malta, bags	lb.	.12¼	.12¾
Morocco, bags	lb.	.05	.06
Cuttlefish, Bone Trieste, Straps	lb.	.19	.22
French, boxes	lb.	.18	.21
Powdered, bbls	lb.	.09	.10
Broken, bales	lb.	.07	...
Damiana Leaves, bales	lb.	**.15**	**.16**
Dandelion Root, Imp. bags	lb.	.09½	.10
Deer Tongue Leaves, bales	lb.	.07	.09
Digitalis Leaves, bales	lb.	.12	.13
Dogwood Bark, Jamaica bags	lb.	.07	.08
American bales	lb.	.06½	...
Doggrass Root, USP, cut bags	lb.	.11	.12
Dragons Blood Mass, cases	lb.	.80	.85
Reeds, boxes	lb.	.90	.95
Echinacea Root, bags	lb.	.15	.16
Elcampane Root, bags	lb.	.06	.07
Elder Flowers, bags	lb.	.15	.18
Elemi Gum, 85 lb cases	lb.	.09½	.10
Elm Bark, bundles	lb.	.14	.17
Grinding bags	lb.	.08	.09
Powdered, bbls	lb.	.13	.16
Ephedra Vulgaris, bales	lb.	**.05**	.06
ERGOT, 150-200 lb bags	lb.	.35	.45
Eucalyptus Leaves, bales	lb.	.05	.06
Euphorbia Pilulifera, Herb, bags	lb	.05	.08
Euphorbium Gum, cases	lb.	.14	.20
Fennel Seed, French, bags	lb.	.06½	.07
German bags	lb.	.08	.09
Foenugreek Seed, 200 lb bags	lb.	**.04**	.04½
Fish Berries, 100-125 lb bag	lb.	.15	.16
Flax Seed, Whole 182 lb bbls	lb.	.05½	.06½
Ground, 180 lb bbls	lb.	.06	.07½
Fringe Tree Bark or Root bags	lb.	.10	.12
Fumigating Pastiles, boxes	lb.	.28	.30
Galangal Root, bags	lb.	.08	.09
Galbanum Gum, cans	lb.	.85	.90
Gamboge Gum, 100 lb cases	lb.	.42	.50
Powdered, cases	lb.	.55	.60
Gelsemium Root, bags	lb.	.07	.08
GENTIAN ROOT, bags	lb.	.08	.09
Ground bbls, boxes	lb.	.11	.12
Powdered, bbls, boxes	lb.	.11	.12
Ginger, African, bags	lb.	.05	.06
Jamaica Grinding bags	lb.	.10	.12
Cochin ABC & Lemon, bags	lb.	.07½	.07½
Ginseng Root, cultivated cs	lb.	8.00	10.00
Wild Southern, cases	lb.	11.00	13.00
Golden Seal Root, bags	lb.	.65	.70
Powdered, boxes	lb.	.90	1.00
Herb, barrels	lb.	.35	.40
Grains of Paradise, bags	lb.	.10	.12
Grindelia Robusta, Herb, bale	lb.	.07	.08
Guaiac Gum, 150 lb cases	lb.	.25	.26
Strained 75 lb cases	lb.	.70	.75
Guarana, tin cases	lb.	.60	.65
Hellebore Root, Black, bbls	lb.	.05½	.06
White, 250 lb bbls	lb.	.13	.14
Powdered	lb.	.15	.16
Helonias Root, bags	lb.	.25	.27
Hemp Seed, bags	lb.	.03½	.03¾
Henbane Leaves, USP, bales	lb.	.07½	.08½
HENNA LEAVES, bales	lb.	.07	.08
Powdered	lb.	.10	.12
Hops, bales	lb.	.21	.24
Horehound, Herb, bales	lb.	.07	.08
Hydrangea Root, bales	lb.	.06	.07
IPECAC ROOT, Carteagna, bags	lb.	.75	.80
Powdered, 220 lb bbls	lb.	.90	.95
Nicaraugua 125 lb bags	lb.	.65	.70
Isinglass, American, 130 lb cases	lb.	.95	1.00
Russian (Beluga), boxes	lb.	4.50	...
Jaborandi Leaves, bales	lb.	**.10**	.11
Jalap Root, Whole, 150 lb bag	lb.	.16	.18
USP, Powd, 250 lb bbls	lb.	.20	.23
Japan Wax 224 lb. cases	lb.	.06	.07
JUNIPER BERRIES, 125 lb bags	lb.	**.05**	.05½
Kamala, boxes	lb.	.18	.22
Karaya Gum, No. 1 Powdered, bbls	lb.	.11	.11½
Kava Kava Root, bags	lb.	.13	.14
Kino Gum, Black, cases	lb.	.50	.55
Kola Nuts, 150 lb bags	lb.	.05½	.06
Lady Slipper Root, bags	lb.	.30	.35
Larkspur Seed, bags	lb.	.25	.27
Laurel Berries, bags	lb.	.08	.09
Leaves, Greek, bags	lb.	**.05**	.05½
Italian, bales	lb.	.08	.09
Lavender Flowers, Ordinary	lb.	.15	.20
Selected	lb.	.24	.28
Lemon Peel, bags	lb.	.08	.09
LICORICE ROOT, Whole bbls	lb.	.12	.15
Spanish Natural bales	lb.	.05½	.07
Powdered, bbls	lb.	.08	.10
Selected Cases	lb.	.12	.15
Cutting, 125 lb bags	ln.	.06	.06½
Turkish, 150 lb bales	lb.	.05	...
Linden Flowers with leaves, bales	lb.	.18	.19
Without leaves, bales	lb.	.21	.22
Liverwort Leaves, bales	lb.	.13	.14
Lobelia, Herb, bales	lb.	.13	.14
Seed, bags	lb.	.21	.26
Lovage Root, Imp., bags	lb.	.15	.17
Lupulin N. F., tins	lb.	1.15	1.20
Lycopodium, 88 lb. cases	lb.	.21	.23
MACE SIAUW, No. 1, cases	lb.	.28	.29
Banda No. 1, cases	lb.	.35	.36
Batavia No. 2, cases	lb.	.31	.32
Malva Flowers, Blue, bales	lb.	.55	.60
Black, bales	lb.	.20	.35
Leaves, bales	lb.	.12	**.13**
Manaca Root, bales	lb.	.20	.21
Manna, Large Flake, cases	lb.	.40	.45
Small Flake, cakes	lb.	.25	.30
Sorts, cases	lb.	.45	.50
Mandrake Root, bags	lb.	**.08**	.09
Marjoram, Herb			
French, No. 1 bales	lb.	.13	.15
German, bales	lb.	.16	.17
Mastic Gum, 120 lb. cases	lb.	.30	.32
Matico Leaves, bales	lb.	.20	.22
Mezereon Bark, bags	lb.	**.15**	.16
Millet Seed, Yellow, bags	lb.	**.02¾**	.03
Montan Wax, Crude, bags	lb.	.04	.04½
Bleached, pure, bags	lb.	.25	.27
Moss, Iceland, bales	lb.	.09	.11
Irish, Bleached, bales	lb.	.10	.12
Mullein Flowers, tins	lb.	.90	.95
Leaves, bales	lb.	**.07**	.07½
Musk Root, Russian, bags	lb.	.06	.07
Myrrh Gum, 200 lb, cases	lb.	.20	.22
Nutgalls, Chinese, bags	lb.	.22	...
Aleppy, bags	lb.	...	.20
Powdered, bags	lb.	.13	.15
Nutmegs, 110's cases	lb.	.11½	.12
75's & 80's cases	lb.	.13½	.14
Grinding, bags	lb	.18	.19
NUX-VOMICA Buttons, bag	lb.	.05	.06
Powdered, 200 lb bbls	lb.	.08	.09
Oak Bark, bags	lb.	.05½	.06
Olibanum Gum, 280 lb cases	lb.	.06	.07
Siftings	lb.	.19	.21
Tears, No. 1 Extra	lb.	.13	.15
No. 2	lb.	.09	.10
No. 3	lb.	12.00	13.00
Opium Gum, USP, cases	lb.	13.00	14.00
Granular, cans	lb.	13.00	14.00
Powdered, USP, cans	lb.	.25	.30
Orange Flowers, cases	lb.	**.08**	**.09**
Peel, Bitter, bags	lb.	.07	.08
Sweet bags	lb.	.07½	.08½
ORRIS ROOT, Flor. bid. bags	lb.	.12	.13
Powdered, 200 lb bbls	lb.	.06	.07
Verona, bags	lb.	.10½	.11
Powdered, 200 lb bbls	lb.	.80	.85
Fingers, boxes	lb.	...	...
Ozokerite Wax, Brown, Hard	lb.	.24	.25
Bags	lb.	.25	.27
Green, Hard, bags	lb.	.20	.25
Yellow, Refined, bags	lb.	1.40	1.45
Papain, Crude, 150 lb cases	lb.	1.50	1.55
Pure, Powdered, 10 lb bot	lb.	.17½	.18
Paprika, bags	lb.	.13	.14
Pareira Brava Root, bags	lb.	.04½	.05½
Passion Flower, bales	lb	.15	.16
Patchouli Leaves, bales	lb.	.08	.09
Pennyroyal, Herb, 100 lb bags	lb.	.12	.13
Leaves, 100 lb bags	lb.		

PEPPERMINT LEAVES, Imp bales lb.	.18	.26
Domestic, bales lb.	.17	.21
Pichi Leaves, bags lb	.08	.09
Pimento Select, bags lb.	.05¼	.06
Pink Root, True, bags lb.	.25	.27
Pleurisy Root, bags lb.	.13	.14
Poke Berries, bags lb.	.15	.16
Root, 200 lb bales lb.	.06	.06½
Pomegrant Bark of Root, bags lb.	.28	.30
Bark of Fruit, bags lb.	.20	.25
Bark of Tree, bags lb.	.15	.18
POPPY FLOWERS, Red, bags lb.	.40	.45
Prickly Ash Bark lb.	.12	.15
Southern bags lb.	.11	.11½
Northern, bags lb.	.11	.12
Berries, bags lb.	.20	.21
Prince's Pine, bales lb.	.15	.20
Psyllium Seed, Black, bags lb.	.09	.12
Plantago Seed, Blonde, Bags lb.	.05	.06½
Pulsatilla, Herb, bags lb.	.10	.11
Pumpkin Seed, bags lb.	.11	.12
Pyrethrum Flowers lb.	.16	.17
Pwd., pure, 200 lb.bbls. lb.	.20	.21
Quassia Chips, bags lb.	.05½	.06
Quebracho, bulk, 125 lb. bbl. lb.	.20	.21
Quince Seed, Spanish bags lb.	1.05	1.20
Persian, bags lb	1.10	1.55
Rape Seed, South American, bags lb.	.05½	.06
Dutch, bags lb.	.06	.06½
Raspberries, Dried, bbls. lb.	.27	.32
Red Saunders, bags lb.	.08	.09
Rhatany Root, bags lb.	.11	.12
Rhubarb Root, HD, cases lb.	.18	.19
Powdered, bbls lb	.22	.23
Rosemary Leaves, bales lb.	.05	.05½
Flowers, cases, bales lb.	.28	.32
Rose Petals, pale lb.	.14	.15
Red lb.	.45	.50
Rue, Herb, bales lb.	.18	.20
Sabadilla Seed, bags lb.	.11	.12
Powdered, bbls lb.	.13	.14
SAFFRON FLOWERS, American, bales lb.	.17	.18
Valencia, 1 lb cans lb.	10.50	11.00
Sage Dalmatian, bales lb.	.05½	.06
Sandarac Gum, 300 lb bbls. lb.	.23½	.25
Sarsaparilla Root, Honduras, bales lb.	.55	.60
Mexican, bales lb.	.13	.14
Sassafras Bark, Ordinary, bales	.08	.10
Select, bales lb.	.12	.15
Savory Leaves, bale lb.	.05½	.06½
Saw Palmetto Berries, bags lb.	.07	.08
Scammony Resin, boxes lb.	1.30	1.35
Root, bags lb.	.06	.07
Senega Root, bags lb.	.37	.42
SENNA ALEX., 150 lb cases lb.	.20	.25
Half leaf 150 lb bales lb.	.08	.10
Sifting, 400 lb bales lb.	.08½	.09½
Tinnevelly, Bold, 350 lb bales lb.	.09	.11
Medium Leaf lb.	.07½	.08½
Small Leaf lb.	.06	.08
Pods, 350 lb lb.	.08	.09
Powdered, 200 lb. lb.	...	.09
Serpentaria Root, bags lb.	.32	.33
Simaruba Bark, bales lb.	.24	.26
Skullcap Leaves, Eastern, bales lb.	.25	.30
Western, bales lb.	.14	.24
Skunk Cabbage, Natural, bales lb.	.11	.13
Snake Root, Canada Natural, bags lb.	.18	.19
Canada, Stripped, bags lb.	...	.45
Soap Bark lb.	.08	.09
Cut, 125-175 lb bags lb.	.05½	.06½
Crushed, 200 lb bbls. lb.	.15	...
Powdered, bbls. lb.	.09	.10
Spearmint Leaves, American, bales lb.	.18	.19
Spermaceti, blocks, cakes, cases lb.	.21	.23
Bulk lb.	.20	.22
Spikenard Root, bags lb.	.07	.08
Squaw Vine, bales lb.	.11	.12
Squills, White, tested lb.	.05	.07
Powdered, bulk lb.	.13	.15
Stavesacre Seed, bags lb.	.13	.14
Stillingia Root, bags lb.	.06	.07
Stone Root, bags lb.	.07	.08
St. Ignatius Beans, bags lb.	...	.90
St. John's Bread, bags lb.	...	.06
STRAMONIUM LEAVES, bales lb.	.10	.11
Seed, bags lb.	.07½	...
Strophanthus Seed, Kombe, bags lb.	1.60	1.80
Styrax Liquid, Artificial lb.	.26	.35
Genuine, USP lb.	.38	.43
Sunflower Seed, bags Calif. lb.	.04½	.05
South American, bags lb.	.07	.07½
Tamarinds, bbls lb.	.05	.06
Kegs keg	3.75	3.85
Tansy, Herb, bales lb.	.12	.13
Thus Gum, 450 lb bbls lb.	.05½	.06½
THYME, Spanish, bales lb.	.06	.07
French, bales lb.	.07½	.08½
Tonga Root lb.	.21	.22
Bark, bundles lb.	.21	.22
Tonka Beans, Angostura Cases	1.40	1.50
Para cases lb.	.60	.70
Surinam cases lb.	.65	.75
Tragacanth Gum, No 1, 100 lb. cases lb.	.72	.77
No. 2 lb.	.57	.62
No. 3 lb.	.47	.52
Powdered, 50 lb boxes lb.	.65	.70
Turkish cases lb.	.45	.65
Turmeric Root Madras, bags lb.	.06	.06½
Aleppy bags lb.	.05½	.06
Powdered lb.	.10	.12
China bags lb.	.11	.12
Turpentine Venice True, 80 lb cases lb.	.30	.38
Artificial, 80 lb cases lb.	.15	.16
Uva Ursi Leaves, bales lb.	.05	.05½
Valerian Root, Belgium bags lb	.11	.12
VANILLA BEANS, Mexican, whole, cases lb.	3.00	4.00
Cuts, cases lb.	2.50	2.65
Bourbon, cases lb.	.75	1.20
Vetivert Root, 100 lb bags lb.	.20	.25
Violet Flowers, bags lb.	.80	.85
Wahoo Bark of Root, bags lb.	.28	.30
Bark of Tree, bags lb.	.13	.14
White Pine Bark, Roseed, bags lb.	.05½	.06
White Poplar Bark, bags lb.	.06	.07½
Wild Cherry Bark, Natural thin, Green lb.	.06	.07
Rossed bales lb.	.09	.10
Thick Rossed, bales lb.	.04	.05
Wild Indigo Root, bags lb.	.09	.10
Willow Bark, bags lb.	.05	.06
White, bags lb.	.15	...
Witch Hazel Bark, bags lb.	.05	.06
Leaves, bales lb.	.06	.07
Wormseed, American, bags lb.	.06	.07
Wormwood, Herb, Imp., bales lb.	.08	.09
Yellow Dock Root, bags lb.	.07	.08
Yerba Mate, bags lb.	.15	.18
Santa, bags lb.	.07	.08

PATENTS

(*Continued from page 81*)

4-position or their substitution products may also be made to react with esters of amino alcohols or their derivatives. Reaction products are oxidized with potassium ferricyanide or electrolytically, or compounds containing pyridine nucleus or their substitution products are made to react with alkylene-polyamines which contain at least one free amino group. Gesellschaft fuer Chemische Industrie in Basel, Switzerland. G. P. No. 551,029, filed March 22, 1930.

Quinine Derivatives

Process for manufacture of quinolin-8-azo compounds of quinine series. Diazo compounds of 8-aminoquinolin or of its substitution products act on hydrocupreine or its substitution products. These have much superior action to quinine and hydrocupreine on malarial parasite. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. G. P. No. 551,094, filed August 9, 1931.

Styrol

Styrol is made by catalytic process, featured by preliminary treatment of catalysts with carbon-free, gaseous substances at high temperatures. Catalyst may be treated with steam, nitrogen gas, or like. Mixture of aluminum oxide, zinc and chromium oxide is slowly heated to 580° C. in stream of nitrogen. Mixture of 2 parts by volume of ethylbenzene and 1 part water vapor, mixed with nitrogen as carrier, is led over catalyst. Yield is 97%, containing up to 70% styrol. Remainder is unchanged ethylbenzene with 2 to 3% condensed products. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. G. P. No. 560,686, filed February 26, 1929.

Lecithin

Lecithin and lecithin-albumen are stabilized with peppermint oil. Oil is mixed with lecithin at high temperature until solution is clear. Dr. Heinrich Buer and Carlheinz Buer, Koeln-Marienburg, Germany. G. P. No. 548,137, filed June 15, 1927.

Iodine Preparations

Solid iodine preparations of good keeping quality are obtained by triturating iodine with potassium iodide and silicic acid. Dr. Rudolf Reiss Rheumasan-und Lenicetfabrick, Berlin, Germany. G. P. No. 550,584, filed September 10, 1925.

Stable Gluconate Solution

Stable, supersaturated solutions of calcium gluconate are obtained by mixing concentrated solutions with small proportion of calcium salts of monocarboxylic acids from polyaldoses. Solutions are decanted while hot and filled into bottles and capped before film of crystals begins to form. Chemische Fabrik vormals Sandoz, Basel, Switzerland. G. P. No. 550,139, filed October 15, 1930.

Drugs from Keratin

Albumenose-like decomposition products, containing sulfhydryl groups, are obtained from keratin substances. They are subjected to acid hydrolysis with simultaneous or subsequent reduction. Treatment is prolonged until keratin substance goes into solution. Decomposition products obtained can be used for therapeutics, or serve as intermediates in production of drugs. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. G. P. No. 550,705, filed November 29, 1929.

Viscum Preparations

Drug to reduce blood pressure is obtained from indifferent types of viscum, that is from pressed juice extracted therefrom. Pressed juice is subjected to fractional treatment with water-soluble, low-molecular weight alcohols and ketones. Filtrate is re-treated with same precipitating agents or with adsorbents. Adsorbents are washed with water. Solvent is removed by evaporation under vacuum. J. Berger Ysatfabrik Wernigerode a.H. G.m.b.H., Wernigerode, Harz, Germany. G. P. No. 542,893, filed March 13, 1930.

(*Continued on page 95*)

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Tinctures

Processes used for preparation of tinctures are critically reviewed with special reference to occurrence of turbidity. Method involving preparation of effective suspension of drug in menstrum followed by percolation is described. This is claimed to be rapid and efficient. H. Breddin. Pharmazeutische Zeitung, 1932, volume 77, pages 783 to 784.

Antineuritic Vitamin

Extracts of rice polishings with cold water or of yeast with hot aqueous hydrochloric acid were concentrated and treated by carbon tetrachloride technic. Treatment of solutions obtained with nitric acid did not reduce total nitrogen content, but considerably decreased potency. Fractionation by addition of picric, flavinic, or rufianic acid followed by butyl alcohol-ether (1:1) extraction was not satisfactory. More favorable was fractional precipitation by organic solvents. Vitamin was destroyed by acetic acid and acetic anhydride. Of 50 inorganic salts only cupric chloride and mercuric nitrate gave precipitates which contained vitamin in concentrated form without considerable loss of potency. Stannous chloride caused extensive destruction. R. J. Block and G. R. Cowgill. Journal Biolog. Chemistry, 1932, volume 96, pages 421 to 431.

Santonin

One part santonin dissolves at 19° C. in 24.871 parts of benzol. Solution of sodium carbonate, 8%, does not extract any santonin from benzol solution. Santonin is soluble in 15% soda solution. Simple solution does not take place; rather labile combination of santonin with carbonate, since santonin, dissolved in sodium carbonate solution, can no longer be extracted with benzol. Coutts. Pharmaceutical Journal, 1932, number 3570, page 128ff.

Sodium Sulfite in Permanent Wave Washes

An important ingredient of permanent wave preparations is sodium sulfite. Process of waving involves subjecting hair to influences which tend to oxidize hair substances as well as color of hair. This is manifested particularly in those cases where hair contains considerable white which is easily yellowed by this action. It has been claimed that this is due to improper waving and moistening of hair, with result that it becomes too dry during heating. Removal of last traces of water at about 100° C. is coupled with easy discoloration of hair. Presence of sodium sulfite in proper proportions in permanent wave preparations will effectively prevent oxidation of color and of hair substance. Sodium sulfite has been found best suited of reducing agents for this purpose.

Camphorated Oils

Study made of physical constants of medicinal camphorated oils. Addition of camphor to olive oil does not greatly affect density, index of refraction, coefficient of light rotation, or capillarity of oil, but lowering of critical temperature of oil in ethyl alcohol or acetic acid by natural (not artificial) camphor can be used for the approximate determination of camphor in commercial oils. Chamomile oil can be distinguished from poppy oil by higher critical solution temperature of latter in 95% alcohol. Faure. Journal de Pharmacie et de Chimie, 1932, series viii, volume 6, pages 58 to 62.

PATENTS

(*Continued from page 89*)

Propanolmethylamin

This is obtained in optically active form by new process without using laevo-tartaric acid. Dextro-rotary component is separated as dextro-tartrate from d-1-phenylpropanolmethylamine with dextro-tartaric acid. Aliphatic alcohols with carbon atom content of C_2 to C_8, which may be mixed with small quantities of water under certain conditions, are added. Laevo-rotary component is dissolved out of residue by conversion into free base with petroleum ether, benzine, ligroin, or cyclohexane. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. G. P. No. 549,970, filed July 20, 1929.

Vitamin Extracts

Extracts, containing vitamins, lecithin and sterines, are prepared as follows: Oil or fat, containing vitamins are allowed to run in thin stream through highly concentrated alcohol. Solution is separated from undissolved residue and alcohol removed from filtrate by distillation in vacuum. Egg yolk, waste oil for example, is slowly passed through 96% alcohol for 2 hours. Oil is removed after 24 hours and alcohol evaporated in vacuum. Residue contains lecithin and cholesterin in high concentration. Cod liver oil, fish roe extracts, liver extracts, extracts of brain substance and testicles are similarly treated. A. G. fuer Medizinische Produkte, Berlin, Germany. G. P. No. 560,146, filed February 26, 1926.

Arsenic and Antimony Drugs

Pharmaceuticals of bismuth type containing both arsenic and antimony, are made by converting solutions of bismuth salts in water with phenylstibine-arsenic acid into alkali salts. Substances, which prevent hydrolysis of bismuth salt, are added. New compounds obtained are used suspended in oil or dissolved in water in form of their alkali salts. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. G. P. No. 550,573, filed February 16, 1930.

Lipoid-Soluble Compounds

Oxides or salts of bismuth or of gold are caused to react with esters of aliphatic or aromatic mercapto-carboxylic acids. Compounds obtained dissolve readily in organic solvents, such as olive oil, sesame oil, and like, which are suited as vehicle in making solutions for injection. Schering-Kahlbaum A. G., Berlin, Germany. G. P. No. 550,765, filed December 17, 1926.

Growth Vitamins

Sterines, particularly cholesterin, are carefully oxidized to point where blue coloration sets in when tested with antimony trichloride. Dr. Ludolf Brauer, Hanburg and Dr. Hans Seel, Lokstedt, Germany. G. P. No. 550,496, filed April 27, 1930.

MISCELLANEOUS PATENTS

Laxative Nutrient

Composition contains 19.84% wheat kernels, 16.34% wheat flour, 3.5% barley flour, 2.05% clay, 4.38% agar-agar, 4.67% malt, 1.47% molasses, 1.47% soda, 1.47% cream of tartar, 0.3% sodium chloride, 24.65% milk of water, 8.76% sugar and 11.1% butter. J. A. Kent and G. E. Leslie. Canadian Patent No. 295,247, filed August 15, 1928.

Transferring Vitamins in Oils

Vitamins are transferred from one oil to another which cannot be saponified and which is not volatile, such as paraffin oil. For example, there are added to 100 kilograms of cod liver oil one kilogram of paraffin oil. Mixture is saponified with calcium hydroxide in nitrogen at not over 90° C. Paraffin oil and vitamins dissolved in it are extracted with acetone. Solution is mixed with 100 kilograms peanut oil and distilled water and entire mass precipitate. Two layers are formed so that they are easily separated. Paraffin oil containing vitamins is removed. Knud Helholt, Aagyhoij, Norway. Norwegian Patent No. 47,343, filed February 8, 1929.

Organic Bromine Preparations

Brominated derivatives of unsaturated acids formed by action of bromine insufficient for complete bromination of unsaturated acids in vegetable oils and train oil, are converted into alkali or ammonium salts and separated. Thus 100 grams of olive oil are treated with 30 grams of bromine at low temperature; after 48 hours mass is saponified with alcoholic potassium hydroxide and fatty acids separated with sulfuric acid. They are washed with water and brominated fatty acids dissolved in calculated quantity of sodium hydroxide and sodium salt salted out with sodium bromide. Best products are obtained in nitrogen gas. Salts prepared from rapeseed, sesame, cotton-seed, linseed, poppy, or castor oils are easily absorbed, odorless and tasteless. Pharmazeutische Werke "Norgine" A. G., Prague, Czechoslovakia. Austrian Patent No. 128,999, filed July 23, 1928.

Haemorrhoidal Salve

Wax is mixed with ground shale and softening agent (olive oil) and with other substances suitable salve. Gijsbertus P. Pijper, Utrecht, Holland. Dutch Patent No. 26,803, filed February 4, 1931.

Garlic Preparation

Garlic is extracted with alcohol and extract allowed to settle; then it is filtered and mixed with 2% mustard oil. Clear solution is extracted with ether to remove fatty acids. L. F. Gakerkorn, U. S. S. R. Russian Patent No. 23,560, filed May 30, 1929.

Recovering Hormones

Extract, containing hormones, obtained with water or alcohol, is mixed with weak organic acids such as diaminosulfonic acids, and with T acid condensed with formaldehyde, or with weak organic bases, for example methylene blue, beta-tetrahydronaphthylamine and benzidine. Insoluble hormones are precipitated and separated from solution. Hormones are isolated from preicpitate by alkali or acid. W. D. Jankowski and S. S. Brjuchonenko U. S. S. R. Russian Patent No. 23,562, filed July 31, 1930.

Cuticle Remover

Mixture consists of 570 parts distilled water, one part essence of rose, 10 parts Florentine powder, ten parts soap bark, two parts 1% potassium carbonate solution, 2 parts carmine, 7 parts soap, 5 parts borax, 400 parts alcohol. Valentine Kargalsky and Edidie Kalf, Jugoslavia. French Patent No. 724,011, filed April 8, 1931.

Hygienic Hair Wash

Consists of 1 volume essence of turpentine, 2 to 3 volumes carbon tetrachloride and 3 to 4 volumes toluene, benzene or xylene with perfume and in certain cases sulfur and lipoids. Alfred M. Milhaud and Anatole Sliosberg, France. French Patent No. 726,316, filed November 17, 1931.

Antiseptic

Solution of bromine in hydrogen peroxide is allowed to act on methanol in presence of catalysts (vanadium oxychloride or mercury). Small amount of formaldehyde may be added. Mixture is advisably subjected to action of ultra-violet light rays during reaction. Final product is stabilized by small quantities of alcohol or acetone. It is thin, light green liquid with bad odor, resembling bromopolyoxymethylene in action. Laboratories Reunis Soc. Anon., Brussels, Belgium. Swiss Patent No. 70,049, filed September 28, 1926.

Stable Solutions of Adrenalin

Process is concerned with preparation of stable and colorless solutions of epinephrine and novocaine. In order to remove oxygen, which is dissolved in water, latter is cooked with sodium bisulfite and hydrochloric acid. It is mixed with sodium dihydrogen phosphate to prevent reaction between epinephrin and oxygen in water. Benzoic acid is added to prevent destructive action of glass on epinephrine. Finally epinephrin or novocaine is dissolved. Solution is filtered and filled into vessels containing nitrogen. A. Bukowski Sukc. Apteka I Pracownia Chemiczna, Warschau, Poland. Polish Patent No. 13,966, filed April 16, 1929.

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IT IS STRETCHING a point, perhaps, to compare a nut and bolt with a C T cap and jar . . . but they do have several things in common.

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A nut may be turned down more, or it may be turned down less, limited only by required tightness. Only a *continuous thread* cap permits like adjustment.

Both are understandable . . . even to the most primitive mind.

And, in numerous instances there is no substitute for either.

Phoenix has pioneered many important improvements in screw cap construction since the first Mason patent . . . chief among these, the shallow continuous thread (C T) cap and the double shell (S T) cap. And, Phoenix will pioneer many more improvements if, as and when needed.

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